HOT SPOT OIL NEWS SECTION

Fast News by Teletype from Four News Bureaus

National Petroleum News

News from All Branches of Oil Industry Everywhere

VOLUME 29 WEDNESDAY, FEBRUARY 24, 1937 NUMBER 8

Ethyl Anti-Trust Suit a Result of Madison Inquiry

N. P. N. News Bureau

WASHINGTON, Feb. 22.—The Justice Department's anti-trust suit against Ethyl Gasoline Corp. is probably an outgrowth of the Madison, Wis., federal grand jury investigation of oil marketing which was instituted following complaints of independent oil jobbers.

In announcing its suit against Ethyl, the department said that independent jobbers have complained "that they have been unjustifiably shut off from handling such (Ethyl) gasoline," and indicated that this brought about the investigation which led to filing of the suit.

Although filed in the federal court for the Southern District of New York, the petition for an injunction against the Ethyl corporation was signed by the same four special assistants to the U. S. attorney general who are conducting the Madison cases against a number of oil companies, trade publications and individuals in the oil industry. They are John Henry Lewin, Hammond E. Chaffetz, W. B. Watson Snyder, and Grant W. Kelleher.

Coincidental Activity

Strangely enough, while Justice Department mimeographs ground out the announcement of the anti-trust suit, Federal Trade Commission officials were preparing a press release announcing an order prohibiting an independent refiner from "unfairly disparaging" Ethyl gasoline.

The refiner, Cushing Refining & Gasoline Co., was ordered to "desist from representing and from using language suggesting that gasoline treated with Ethyl is narcotic in effect, 'doped up,' poisonous, unsafe or dangerous to the life or health of persons using it for motor fuel." The FTC claims this representation is false.

In this, the Department of Justice petition is in accord with the commission. It charges that while the jobber licenses at which the suit is directed purport to be "aimed at the protection of health and the maintenance of quality of gasoline treated with Ethyl fluid," they are actually used to "bring about stabilization of retail gasoline prices."

In support of this, the petition says:

No Health Hazard

"The addition of Ethyl fluid to gasoline, however, does not cause or produce any dangers or hazards to health, the Ethyl and regular gasoline being in no respect more dangerous to health than ordinary untreated gasoline. No authentic cases of lead poisoning, or other injury to health from such lead-treated gasoline, have ever been discovered."

As to the licenses being aimed at maintenance of quality of gasoline, the petition asserts that the defendants have not required any trade mark or minimum octane specification in connection with regular or "Q" gasoline.

Seeking an injunction against continuance of the Ethyl corporation's jobber licensing system, the government charges that the corporation "has unlawfully restrained the sale of the greater part of all gasoline sold in interstate commerce in the United States."

"More than 70 per cent of all gasoline consumed in the United States," according to the petition, is treated with tetraethyl lead, which is manufactured by the defendant corporation under certain patents.

Sold to Refiners

This fluid is sold to refiners which the corporation also licenses to sell gasoline treated with the fluid through their own outlets as well as to jobbers, according to the petition. But, it charges further, the corporation reserves the right to approve and license the jobbers to whom may be sold this Ethyl-treated gasoline, and in so doing imposes an "illegal restriction."

But, the government's contention is that the corporation permits only those jobbers to have licenses who maintain the major companies retail prices in the resale of the treated gasoline, and that jobber-licensees are required to maintain these prices through "an elaborate system of investigation."

The company's patents do not entitle them to designate jobbers who may purchase their

(*Continued on page* 11)

Full text of the petition filed by the Department ot Justice seeking an injunction against Ethyl Gasoline Corp. will be found on p. 25 of this issue.

See Threat of Oil Control In Supreme Court Move

BY J. C. CHATFIELD

N. P. N. News Bureau

NEW YORK, Feb. 22.—A distinct feeling of uneasiness regarding future control of the oil industry from Washington ran through the meetings of the American Institute of Mining and Metallurgical Engineers here Feb. 15-19.

Several speakers before the petroleum division gave voice to the thought that President Roosevelt's proposed change in the U. S. Supreme Court may result in federal oil control.

"If the court program goes through it will be an important step in the destruction of free enterprise in this country," Samuel B. Pettengill, member of Congress from Indiana said at the annual dinner of the petroleum division in response to a question.

"It means," he continued, "that coal and oil can be made public utilities. It means regulation of wages and hours of work. It means a bureaucratic empire in the United States. It means a new NRA. It means a new AAA. It means a new Guffey coal bill."

Henry M. Bates, dean of the University of Michigan Law School, and a member of the A. I. M. E. Stabilization Committee warned at the dinner that oil may be declared a public utility at any time. He discussed the present world-wide trend toward collectivism, of which the present Supreme Court move is a part.

Dean Bates expressed no fear for the immediate future but pointed to what has happened in certain European countries and what happened in Louisiana to show that a wave of hysteria might at some future time put a dictator in the White House if it is possible to make the judiciary subservient to the executive branch of our government.

Found an Umpire

William S. Farish, chairman of Standard Oil Co. of New Jersey, expressed alarm at the court proposal. "A few years ago he said, "the oil game was pretty well disorganized. Everyone was trying to carry the ball in all directions at the same time.

"The industry found that it must have some reasonable regulation. Some umpires were

Come To Convention And Bring Your Trailer

LOS ANGELES, Feb. 20.—Trailer tourists from everywhere are invited to attend a convention at Huntington Beach, May 28 to June 6.

A city-owned park is to have $2000 spent on it for new equipment and for better accommodations. A private park is also improving its facilities for taking care of house trailers. Room for 1000 trailer units will be available.

A parade of trailers will start the convention on May 29, led by bands and civic organizations. A queen of the trailerites will be selected by a local committee and crowned June 5.

Trailer manufacturers will be invited to show their new streamlined trailers and equipment at the Annual Merchants Exposition to be held in conjunction with the trailer convention.

Huntington Beach hopes to be known as the "Trailer City of the West."

needed in the game. The Supreme Court is one of these umpires, and, if our umpires are tampered with we will have no rules of which we can be sure."

Mr. Farish gave it as his opinion that the present proration regulation in the various states is fairly effective and production quite efficient. He said that, with our present machinery, it will not be possible to have "another Oklahoma City or East Texas."

The production engineers were urged by Mr. Farish to continue making progress in preventing waste. "If the public cannot charge waste against us perhaps this bugaboo of control will pass away," he said.

The first speaker to suggest that the Supreme Court program has a federal oil control implication was Northcutt Ely, former secretary of the Federal Oil Conservation Board appointed by President Coolidge some twelve years ago.

The oil control question today is not whether there shall be control, or what sort of regulation is wise but what government shall exercise regulative power. When the Supreme Court invalidated the NRA, AAA and the Guffey Coal Control Act "it then appeared settled that the state and not the federal government possessed the regulatory powers," Mr. Ely said. Granting that conservation measures are a recognized necessity, the problem seemed to be to develop the wisest kind of regulation that the constitution would permit. Today, by virtue of developments during the first months of 1937, the oil industry is faced again by the question of whether the federal government is to have power to control its operations, along with those of the other basic industries.

Implications Plain

"Among recent developments the dominating one is the President's proposal that he be authorized to increase the size of the Supreme Court to 15 members. The implications of that plan ought to be perfectly plain to the oil industry. This suggestion is made in lieu of offering an amendment to the constitution, to reverse the Supreme Court decisions mentioned.

"In those decisions the court held that production does not constitute commerce, and hence that the federal power to regulate interstate commerce does not extend to the regulation of production. These holdings were contrary to the government's contention that the stream of commerce begins in the factory and ends with the consumer and may be regulated at any point from beginning to end.

"If this doctrine, so recently rejected, is to be accepted by a new court, the oil business is squarely in the line of march.

"If the commerce power is to be the raft on which new federal industrial legislation is to float to safety, it is difficult to conceive of a decision validating federal control of crop production, or federal control of wages in a coal mine, which does not automatically validate federal control of oil production. This is particularly true because here the stage at which regulation is applied can be chosen so as to focus attention on the pipeline rather than on the oil field.

Discussing the various weaknesses of state oil control methods, including exceptions to well spacing rules and, failure to follow Bureau of Mines Quota recommendations, Mr. Ely suggested that the compact method needs strengthening and that unit operation should be made mandatory.

"The current is running toward a centralized government," he said. "Whether or not the move to reorganize the Supreme Court succeeds, the oil compact must be made seaworthy if it is to move against that current and to set a course for other industries to follow through the sea of governmental relations."

Unit Operations

One entire afternoon of the meeting was devoted to a discussion of unit operations and other methods of oil production control. The meeting was sponsored by the A.I.M.E. Stabilization Committee, of which Earl Oliver, Ponca City, Okla., has been chairman for several years. Mr. Oliver opened the discussion with a paper titled "Can the Rules of Capture Be Rationalized." He suggested four questions for discussion:

"1. Can physical waste be controlled?

"2. Under what theory of law can we balance supply and demand when we have a producible surplus?

"3. Under what theory of law can drilling be regulated?

"4. How can a landowner be rewarded for restricting production in a high gas-oil ratio area?"

Public interest in the oil producting industry requires that the oil be extracted from the reservoir at the time society needs it and at the rate needed, Mr. Oliver said. The content of the reservoir also must be equitably distributed among its common owners. It is Mr. Oliver's view that unit operation fulfills all requirements of a workable production plan in that it is mechanically feasible, economically advisable and politically wise.

Proration Defended

Robert E. Hardwicke, of the Sun Oil Co., Fort Worth, spoke at length in defense of present proration methods as against unit operation. In his opinion the industry has made vast progress in production control in recent years, and it now has good enough laws but most of its troubles are caused by faulty administration of present laws. He suggested that, even under compulsory unit operation it could be possible to have maladministration.

Several stumbling blocks still in the path of compulsory utilization were suggested by Mr. Hardwicke. These include the due process clause of the Constitution. He asked how it would be possible to force someone into a unit without undue interference with property rights.

Along with others Mr. Hardwicke expressed his belief that the unit method is the ideal but he warned that proration has gone forward step by step—that the courts have been educated as well as the oil operators. He warned that an effort to move too rapidly might bring about an adverse court decision that would damage progress.

John M. Lovejoy, of Seaboard Oil Co., retiring president of the A.I.M.E., expressed the view that, while proration has made progress, the big problem without unitization is what to do about the producer in the gas cap area of an oil field.

Max Ball, consulting engineer, Denver, summed up the thought of the afternoon when he said that this was the first debate of the sort he had attended for seven years. In that time vast progress has been made, he said. No group would have agreed seven years ago that unit operation is the ideal.

Test Is Coming

Mr. Ball pointed to the growth in current demand for oil in a period when new discoveries are lagging and suggested that the sincerity of the industry in its conservation may soon be put to a test. "We are coming to the end of the stabilization period and into a period when it is to be seen whether conservation can stand on its own feet under pressure of demand for more oil," he said.

A similar idea was proposed by H. B. Fell, Tulsa, vice president of the Independent Petroleum Association of America. Col. Fell said that in his opinion we now are producing about as much oil as we can without committing underground waste, without dissipating underground pressure. When the time comes that we cannot supply demand without reducing underground pressures too rapidly, he suggested that the industry should reduce its sales of fuel oil.

Mr. Hardwicke took issue with Col. Fell's statement about the industry's ability to produce more oil. He suggested that 200,000 to 300,000 more barrels of oil per day can be produced in Texas without underground waste.

Role of Price

In the annual session on economics, Joseph E. Pogue, vice president of Chase National Bank, New York, continued the exposition of his studies of the role of price in crude production in a period of proration.

Dr. Pogue told the engineers that price is relieved of the role of balancing supply and demand under proration but it does affect drilling. It also affects demand and the flow of capital into or away from the industry. Price may not be affected as quickly under proration but it is Dr. Pogue's contention that any attempt to use proration as a means of fixing price is doomed to failure.

Since proration makes changes in price slower Dr. Pogue sees two dangers to the industry: "Firstly, in the event of over-discovery, the way is left open for the development of sustained drilling campaigns leading to the loss of equilibrium. Secondly, in the event of underdiscovery or of inflationary demand, the way is left open for the inhibition of the price changes needed to facilitate transition to a new plane of equilibrium. In short, the petroleum industry, now as well as formerly, stands in need of a flexible price structure attuned to directing the forces of price to the safeguarding of equilibrium."

Full text of the paper by Sidney A. Swensrud, assistant to the president, Standard Oil Co. of Ohio, discussing current marketing problems is reproduced elsewhere in this issue along with the address by Congressman Pettingill on the "Future of Free Enterprise in the Oil Industry."

At the annual dinner of the engineering institute the Anthony F. Lucas medal for achievement in oil production engineering was presented to J. Edgar Pew, vice president of the Sun Oil Co. This is the first time the medal has been awarded. Mr. Pew was given the medal in recognition of his work to advance standardization of oil field equipment.

Blockade Docks In Los Angeles

N. P. N. News Bureau

LOS ANGELES, Feb. 20.—A teamsters' union blockade of all docks in Los Angeles harbor threatened again to tie up passenger and freight vessels operating out of that port. Longshoremen returning to work after the three-month walk-out refused to pass through the teamster picket lines.

A crisis was reached in the situation when ship owners announced they would be forced to omit Los Angeles as a port of call and would divert all traffic to other ports unless longshoremen lived up to their agreement with the shippers to move the cargoes.

The issue was whether San Pedro shall be a union port or whether nonunion truck drivers will be allowed to operate on the docks, union representatives said. These included labor leaders from Seattle, where a farmer cannot drive his own truck within the city limits but must employ a union driver at 80 cents an hour.

In preparation for the plan to paralyze the local port nearly 500 teamster pickets were concentrated at the Matson, American-Hawaiian and Isthmian docks and at several terminals.

By many, this move to organize truck drivers operating on the docks was looked upon as a preliminary step toward unionization of all transportation facilities in southern California. Success of such a plan would hit approximately 350 transport units hauling petroleum products in the area.

Entering Wedge

A previous attempt to organize the drivers of these units failed, but success in the drive to unionize the dock truckers would provide the entering wedge for organization of all truck drivers, it is thought.

The present move at San Pedro is aimed to include trucks operated by freight lines and private companies and would include oil company trucks making deliveries into the harbor area.

Ethyl Suit

(*Continued from page* 9)

product from the refiners, the government avers, adding "and particularly not to attempt to control prices at which the jobbers resell and distribute the gasoline to dealers and consumers."

Officials Named

The government's suit names Earl C. Webb, president, and J. Coard Taylor, vice-president in charge of sales of the Ethyl corporation as defendants, along with the corporation itself, whose stock, the petition says, is all owned by the Standard Oil Co. of New Jersey, General Motors Corp., and E. I. du Pont de Nemours Co.

Will Leave Empire

BARTLESVILLE, Feb. 20.—Fred K. Haskell, manager of the Empire Pipe Line Co. and head of the crude oil purchasing division of the Empire companies in the Mid-Continent has announced his resignation effective April 1. He will then move to San Antonio where he expects to engage in business as an independent producer.

Mr. Haskell has been with the Empire interests for more than 20 years and has an intimate knowledge of practically every producing field in the Mid-Continent. Besides his official position with Empire, he also resigns as vice president and director of the Texas-Empire Pipe Line Co. and of the Kaw Pipe Line Co., which latter is a joint trunk carrier serving western Kansas fields.

Revamp McMurray Plant

N. P. N. News Bureau

TULSA, Feb. 22.—The Dubbs cracking unit at the McMurray Refining Co. plant at Arp, Tex., is being revamped and a new selective phase furnace is being installed. While the remodeling and new installations will not increase the plant's capacity materially it will permit more efficient cracking operations. The work is expected to be completed about May 1.

Acquire Eastern Property

BOLIVAR, N. Y., Feb. 22.—Sloan & Zook have acquired the operating rights on the 300-acre McDevitt Oil Co. tract in the Black and George Hollow, along the Bolivar-Allenton highway. This tract is one of the largest in the Alleghany field.

The property is now partially water flooded. It is believed the company will immediately increase operations by drilling and water flooding. Modern equipment also will be installed.

BIRMINGHAM, Feb. 22.—A bill by Representative W. S. Welch, of Bessemer, prohibiting diversion of revenues from Alabama gasoline taxes and the license tax on automobiles to purposes other than construction and maintenance of highways, was signed by Governor Bibb Graves Feb. 10.

Oil Union Drive Planned To Begin in South Texas

By Teletype
N. P. N. News Bureau

WASHINGTON, Feb. 23.—Threatened domination of oil industry labor from derrick floor to filling station pump by John L. Lewis and his Committee for Industrial Organization will meet determined opposition from the forces of craft unionism and the American Federation of Labor.

A campaign by the A. F. of L. to forestall any inroads which the C.I.O. may attempt to make in its oil-industry membership is expected to be announced this week.

A high ranking official in one of the A. F. of L. craft unions served notice today that the C.I.O. proposed organization of the oil industry from the bottom up will not go unchallenged.

Last Ditch Fight

"It is our intention to fight this campaign to the last ditch because upon our success in this struggle depends the very life of craft unionism," he told National Petroleum News.

"This is evident from the methods employed by Lewis' union in the General Motors strike, where every effort was made to freeze out craft unions and make the industrial union the exclusive bargaining agency for all labor within the industry," he added.

TULSA, Feb. 23.—Houston, Texas, newspapers have published statements that the C.I.O. drive to unionize the oil industry will be launched in the Houston and Port Arthur districts beginning April 1.

A statement published today quotes Secretary George A. Wilson of Houston Trades and Labor Council as saying that local central councils and the state federation had been instructed by President William Green, not to engage in a fight with C.I.O.

That some conflict between the two major groups will occur is, of course, inevitable. The A. F. of L. craft unions have been and now are increasing their memberships without having set specific dates for beginning of campaigns. Much of the recent increases, it is said, has been in the building trades and those trades are well represented in oil industry employment.

Harvey C. Fremming, president of the oil union, has asserted that the plan is to organize the oil industry workers all the way from the field to the filling station. He recently was quoted as saying that his association has about 215,000 members and that there are about 1,000,000 eligible for membership. He is further quoted as saying that John L. Lewis will lead the membership campaign.

From sources of information believed to be reliable, National Petroleum News learns that Oklahoma is now the state of largest membership in the Oil Field Union and that the Houston and Port Arthur areas, selected as the points for the start of the campaign, have lost heavily in strength since suspension of C.I.O. unions from the A. F. of L.

Heald is Recovering

TULSA, Feb. 20.—Friends of K. C. Heald, staff geologist for Gulf Oil Corp., Pittsburgh, have received word that he is recovering satisfactorily from injuries sustained in an automobile accident in Trinidad, B. W. I. With Mrs. Heald, he was riding in a car which ran into the back end of a cart from which a long pole protruded. Heald was struck in the head by the pole and for a time it was feared he would loose the sight of one eye, but late reports are that he will recover fully. Mrs. Heald was not injured. They were en route with Gulf officials to Venezuela.

Oil Scouts Announce Meeting

DALLAS, Feb. 22.—National Oil Scouts Assn. will hold its annual meeting in Dallas, June 25-26. Officers are now working on a program which in recent years has featured addresses by legal and technical authorities. Claude Strahan, Atlantic Refining Co., Shreveport, is president of the association and Howard Boyd, Magnolia Petroleum Co., Dallas, is secretary.

Schiller Joins Wiloil

PITTSBURGH, Feb. 22.—M. S. Schiller, formerly of the Keystone Oil & Refining Co., Detroit, will represent the Wiloil Corporation in central and western Ohio, beginning March 1, S. M. Hamilton, secretary of Wiloil announces. Mr. Schiller is well known to jobbers in that territory, having covered it for several years.

Jobbers Ask Congress Not To Extend Connally Law

N. P. N. News Bureau

WASHINGTON, Feb. 23.—A ponderous volume containing more than 250 pages of pros and cons on the Connally Law will come off the presses this week at the Government Printing Office.

As soon as the hearings are available, Senator Connally, Texas, will press for early action by the finance committee. Unless extended, the Connally Law, which prohibits interstate shipment of oil produced in violation of state law, dies June 16.

No Companion Bill

So far, no companion bill has been introduced in the House to make the law permanent. The strategy of the proponents apparently is to concentrate their energies on getting the bill (S. 790), through the Senate and then turning their attention to the House side.

Jobber on Committee

Sitting on the Senate finance committee is an independent oil jobber—Senator Clyde L. Herring, of Iowa. He will find in the volume of hearings page after page of testimony in which his fellow oil jobbers blame the Connally Law for nearly all the ills that afflict the marketing branch.

Within its pages, he will find no jobber favoring the law; nor any producer or refiner opposing it.

The only marketing representative endorsing the Connally Law was Wilmer R. Schuh, Milwaukee, president of the National Assn. of Petroleum Retailers. Declaring that the NAPR represents 309 retailer organizations with 52,000 members, Schuh unqualifiedly approved the law's extension.

There are many more pages wherein producers and refiners, and federal and state officials recount how the Connally Law "saved" the independent producer and refiner from being drowned in a flood of "hot" oil.

Parade of Jobbers

Following Secretary Ickes' endorsement of the Connally law, reported in NATIONAL PETROLEUM NEWS last week, there was a parade of independent jobbers opposing the measure.

One highlight of the hearings was the testimony of Harvey C. Fremming, president of the oil workers' union on the last day. Contrary to advance notices, Fremming unreservedly favored extension of the law, although urging that it be amended to include provisions for a maximum work-week of 36 hours and a minimum wage of $5 per day.

Senator Connally told Fremming he was in the wrong forum, that he ought to ask the Texas Legislature to enact wage and hour laws, if he thought them necessary.

Another highlight was the testimony of Bryan Payne, president of the Iowa-Payne Oil Co., from Tyler, Texas, who declared that the Connally Law has "saved" many independent producers but he urged that tender boards be set up at Corpus Christi and Houston.

Deny Purchases

The jobbers consistently denied that they ever purchased any gasoline made from "hot" oil but they minced no words in attacking the Connally Law.

Conservation is the "feigned objective" of this law, while "control, monopoly and price-fixing is the result," according to W. R. McCain, Springfield, Mo., representing the Missouri Independent Oil Jobbers and three other jobber associations in the "Show Me" state.

McCain charged that the Connally Law, plus the Interstate Oil Compact and Bureau of Mines' forecasts, is helping the major oil companies to subsidize their losses in marketing.

"It is obvious," McCain said, "that the small producers are for the Connally Act because of better prices, and they would condemn it just as readily if they did not get the better prices.

"Serves Purposes"

"It is also obvious that the major oil companies are paying the better prices not because of the Connally Act *per se* but because it serves their purposes better to do so," McCain said.

"They need the profits on their own large production, which higher prices afford them to help subsidize their own losses in marketing while they crush competition in that branch of the industry," McCain added.

A similar note was struck by L. O. Baucum, representing the independent jobbers' division of the Kentucky Petroleum Marketers Assn. which includes 75 jobbers.

Baucum said that the federal government, through the Connally Law has enabled the major oil companies with their production, refining and pipeline interests "to fix prices to the extent that profit obtained is entirely satisfactory. Hence, they do not find it necessary to even expect a profit from the marketing end of the business but rather expect to take a loss in order that the jobber may be eliminated."

The brief of the Virginia Petroleum Jobbers Assn., opposing the bill, was joined in by representatives of the South Carolina Jobbers Assn., Georgia Independent Oil Marketers Assn., and the North Carolina Independent Oil Jobbers' Assn. It was presented by Ira F. Walton, of Roanoke (Va.) Oil Co.

The brief declared that if production needed to be controlled then all branches of the industry, from well to consumer, should be controlled or else the different branches completely divorced.

The Connally Law was linked with the alleged gasoline buying pools, mentioned in the oil indictments returned at Madison, Wis., by Henry M. Wilson, Cushman-Wilson Oil Co., representing the independent jobbers' branch of the Iowa Petroleum Assn. After presenting the association's brief, Mr. Wilson, who has been an independent jobber for 25 years, launched an argument of his own.

Stabilized Market

"For 20 years we operated at a profit," he said, "but after passage of the so-called Connally Act the market was so stabilized, so controlled by the so-called major companies, that we have been obliged to buy in a strictly controlled market, and sell on a basis set by the majors, that only two cents per gallon on gasoline is left us to cover local taxes, rent, wages, salaries, depreciation, and upkeep, which means that we have operated at a loss for the last two years, and must eventually, if this practice is continued, be driven out of business, because the majors have been put in a monopolistic position by the control of production and the illegal buying pool which prevents real competition in the market where we buy."

Senator Lonergan, Conn., also a member of the subcommittee, pricked up his ears at the mention of "buying pools" and declared that, if they existed, "they ought to be stopped."

When Connally heard Wilson say his company was losing money, the Texan suggested: "You would do better to go out of business."

Wilson said he wanted to stay in business—in fact, had to—to protect his investment.

George O. Hill, Jr., of Houston Oil Co., an independent producing company, of Houston, said that independent refiners are just as desirous of selling independent jobbers as the latter are to buy.

Opposition of the Oil Men's Assn. of New England to the Connally Law was presented by Fred L. Bergfors, Quincy Oil Co., Quincy, Mass.

Bergfors said New England marketers opposed the law because it has eliminated competition for their business, frozen up sources of supply, increased the cost to consumers, and aided the major companies to subsidize their marketing losses with "abnormal profits" from production.

Bergfors said that proponents of the Connally Law "should be thankful that we had an unusually mild winter on the east coast this winter or this bill would be doomed even before this hearing." Even with mild weather, some apartments, homes and industrial users on occasions have been reduced to as low as 24 hours' supply because heating oils were so scarce.

IPAA Supports

Support of the independent producers was thrown behind the bill in statements of Russell B. Brown, general counsel for the Independent Petroleum Assn. of America, and Harold B. Fell, executive vice president of the National Stripper Well Assn. Both witnesses also appeared on behalf of a number of other producer organizations which joined in their briefs.

"Illegally-produced oil today is practically a negligible feature in the national picture," Brown said. "Because this excess supply has now been reduced to what appears to be a minimum, the petroleum industry has so stabilized itself that it is today in an excellent position to serve the nation through its conservation and development of this natural resource, to serve the public at low prices for the essential commodity it produces, to give employment to over a million persons and to provide its contribution to the revenues of the various governmental units including the federal treasury."

Protects Stripper Wells

Mr. Fell declared that the Connally Law has aided conservation by preventing illegally-produced oil from so breaking the price of crude that stripper wells would have to be abandoned. Sixty per cent of the nation's oil reserves is represented by settled production, Fell pointed out.

The government's legal record in enforcing the Connally Law was given by Richard H. Hill, special assistant attorney gen-

eral who handles court cases in East Texas. Of the total of 248 civil and criminal cases, the government has won 231 and lost 2, with 15 still pending. In every case, constitutionality of the law has been upheld.

WPRA Favors

Among the telegrams endorsing the Connally Law received was one from Western Petroleum Refiners Assn., in which A. V. Bourque, secretary, strongly urged that the law be continued.

Roy Brecke, executive secretary of the Wisconsin Petroleum Association, representing 395 independent oil jobbers in that state, waited around several days to testify and finally filed a brief and went home.

"Our association", said the brief "must oppose the Connally Bill or else the life of independent jobbers will be very short." Under the Connally law independent marketers cannot enjoy "an open and free market to purchase their gasoline in that federal government has aided in holding the supply of crude oil below market demand," the brief declared.

Former President Of Wadhams Dies

MILWAUKEE, Feb. 22.—S. S. Cramer, formerly chairman of the board of the Wadhams Oil Corp., died at his home here Feb. 15, at the age of 77. He had been in ill health for 11 years. He is survived by his wife.

Mr. Cramer was with the Wadhams company for 41 years, joining it as plant employe in 1888. He later became superintendent, assistant treasurer and, upon the death in 1916 of E. A. Wadhams, organizer and founder of the company, Mr. Cramer was elected president. With the merger of the Wadhams with the Bartles-Maguire Oil Co. in August, 1929, he became chairman of the board of the newly merged Wadhams Oil Corp. With the acquisition of the Wadhams by the Vacuum Oil Co., now the Socony-Vacuum Oil Co., Inc., in 1930, Mr. Cramer retired.

Mr. Cramer was active in Independent jobber associations, serving as president of the Wisconsin Petroleum Association in 1923. He also served several terms as first vice-president of the National Petroleum Marketers Association, the national organization of independent marketers of the 20's. He was first elected to this post in 1922, in which year he was also elected one of three trustees of the Independent Oil Men of America, advertising group of the National Petroleum Marketers Association.

The Wadhams company was one of the oldest and largest Independent marketers in the country. At the time of its merger with Bartles-Maguire, the two companies had a yearly gasoline gallonage of 43,000,000. When the Vacuum absorbed it, Wadhams had about 125 service stations in eastern Wisconsin, 825 dealers, and 26 bulk plants. Stock exchanged in the deal was valued then at over $7,000,000.

Postpone Passage Of Oil Ordinance

CINCINNATI, Feb. 20.—Two ordinances to regulate storage of gasoline and inflammable liquids and to govern their transportation on city streets will be up for a public hearing before city council here Feb. 24.

Though up for passage Feb. 17, action was deferred when it was reported that gasoline distributors wished to express their views.

One ordinance would prohibit construction of storage tanks inside the 85-foot flood level, unless the empty tanks could withstand floodwater pressures when submerged to the top. A corollary requirement would be that tanks must be anchored to the ground firmly enough to resist buoyancy when completely submerged.

The other ordinance would ban the carrying of inflammable liquids in "truck trains" of more than one tank unit.

Ohio Jobbers Ask City To Postpone Action

By Telegraph

COLUMBUS, O., Feb. 23

Resolutions were adopted here today by the Ohio Petroleum Marketers Ass'n. asking the Cincinnati city council to postpone adoption of any legislation affecting tankage in the Ohio river valley until experts of the National Fire Protection Association and the American Petroleum Institute have had an opportunity to study the situation.

The oil men assured the city that they want to do everything possible to make tankage safe but that they want the legislation to be in line with recommendations of fire prevention experts.

New directors elected at the meeting include Sam Bohlen, Orville, O.; J. H. Eversman, New Knoxville; C. F. Heinzelman, Chillicothe; and W. J. Loufman, Cleveland.

Oil Broker Loses In Fraud Case

NASHVILLE, Tenn., Feb. 22.—A. C. Taylor, Texas oil broker, indicted in Tennessee for conspiracy to defraud the state of gasoline taxes by shipping gasoline billed as kerosine, must return here to face trial, the Texas Criminal Court of Appeals has notified Davidson county, Tenn. authorities.

The Texas high court upheld the decision of the district court at Fort Worth for Taylor's extradition and, with the certification of the decision back to the Fort Worth court, Taylor must return to Tennessee unless he appeals to the U. S. Supreme Court.

Two Davidson deputies are awaiting word from Texas officials on proper certification and apprehension of Taylor. He will be returned to face trial within the next few weeks, Attorney-General J. Carlton Loser announced.

G. G. Gean, of Halls, and J. H. Land, of Memphis, indicted jointly with Taylor, and J. H. Campbell, a Texas fugitive, have been convicted and sentenced to terms of 1 to 5 years in the first of the series of "gas" tax fraud cases. Taylor fought extradition and escaped the trial. He will be tried alone on this count, and along with other defendants in a half dozen additional cases pending against him when he is brought back, General Loser said.

Taylor, peculiarly, was not subject to extradition on the original indictments. He had never been in Tennessee, and could not be charged with an overt act in the conspiracy to force his extradition. But he mysteriously appeared in Nashville and made $10,000 bond through local professional bondsmen. Upon his return to Texas he later announced that he had been ill-advised by attorneys, and would not return to Tennessee for trial. The state then started extradition proceedings, on the theory that he had submitted to the jurisdiction of the Tennessee courts, and was therefore subject to extradition. The courts have upheld this contention in ordering his extradition. No efforts had been made to return him here for trial prior to his appearance voluntarily to make bond.

Campbell has left no trace since his disappearance while awaiting habeas corpus hearing in Houston, Texas, after extradition papers had been granted. His $5000 cash bond was forfeited, and Tennessee still has a $1000 reward for information leading to his capture.

He is under indictment in 10 cases in Tennessee, and Taylor under a lesser number. More than 20 Tennessee gasoline dealers are involved in the conspiracy charges. Only Gean and Land have been tried.

BIRMINGHAM, Feb. 22.—Gasoline and lubricating oil are exempted from the new two per cent retail sales tax which will become effective March 1 in Alabama. They are already heavily taxed and leaders in the petroleum industry succeeded in having these commodities exempted.

The tax on automobile sales was also cut to one-half of one per cent, which was acceptable to automobile dealers.

Kentucky Marketers Meet March 22-24

LOUISVILLE, Feb. 22.—The meeting of the Kentucky Petroleum Marketers Ass'n., originally scheduled for Feb. 8 to 10 at Louisville, but which was postponed because of the flood, will be held March 22, 23 and 24 at the Brown Hotel, Louisville, Herbert L. Clay, secretary, announces.

The program will be as originally planned, every speaker having indicated he would cooperate by attending the March meeting. March 22 will be "Retailers Day" and the 24th will be "Petroleum Industries Committee Day," Mr. Clay says.

Speakers will be: March 22, Sam T. Hurd, secretary, Indiana Gasoline Dealers Institute, and E. J. Gallmeyer, vice-president and director of sales, Wayne Pump Co., Fort Wayne, Ind.; March 23, H. T. Willis, Louisville attorney and H. W. Dodge, vice-president and director of sales, The Texas Co., New York; March 24, F. E. Packard, counsel, Standard Oil Co. of Indiana, Chicago, and Dr. James W. Martin, Commissioner of Revenue for the state of Kentucky.

The trade exhibit planned for the February meeting will be held, all but one exhibitor having indicated they will take space in the March meeting.

Plans are being made to show a set of Kentucky and Louisville flood newsreels.

National Petroleum News

Copyright 1936 by The National Petroleum Publishing Co.
Trade Mark Registered U. S. Patent Office.

Published every Wednesday by The National Petroleum Publishing Company

FOUNDED 1909

Warren C. Platt, *Editor and Publisher*
V. B. Guthrie, *Managing Editor*
A. E. Waldorf, *Advertising Manager*

Member of Audit Bureau of Circulation and Associated Business Papers, Inc.

Publication office: 1213 W. Third Street, Cleveland, O.
Telephone, CHerry 7672—Cable Address, Plattoil, Cleveland

NEWS BUREAUS

New York, 50 W. 50th Street, Telephone, COLumbus 5-1516 and 5-1517
Chicago, Buckingham Bldg., 59 E. Van Buren St., Telephone, Harrison 5901-2-3
Washington, D. C., 1002 National Press Bldg., Telephone, NAtional 0654
Tulsa, Okla., 904 World Bldg., Telephone 3-7132
Los Angeles, 610-A Hillstreet Bldg., 815 South Hill St., Telephone VAndike 2845

Subscription rate $2 per year in United States and Mexico; $3 in Canada; $3.50 Foreign Countries. Current copies 10 cents; back copies more than two months old 20 cents per copy.

Watch for Flood Laws

The oil industry has been devoting the best of intensive engineering study and construction to its marketing facilities for many years now and this all showed to good advantage in the recent Ohio river flood.

The best of engineers have been designing the bulk plants of oil companies and the equipment to go into them, the best of oil company engineers and of the manufacturers of the equipment. That neither they nor a few million other people foresaw this greatest flood in history seems to be about the only thing they overlooked. But now that this new flood record has been set, the oil companies are busy planning how best to guard against the difficulties of another, even though it may never come.

The action of the National Board of Fire Underwriters last week in taking charge of the situation and appointing a committee representative of all at interest in oil and floods is welcomed by the industry. An investigation and finding of facts with proper engineering recommendations under the auspices of the National Board will guarantee intelligent consideration of the problem, as compared with the hysteria, or worse, that may seize on some of the authorities local to the scene of the flood.

Judging from early reports, at least from the Cincinnati region, the engineering problem to make oil storage safe against future floods does not appear to be particularly difficult nor expensive in solving. This is supported by the relatively small amount of damage done to the plants.

The oil industry can well point with pride to its excellent bulk station construction, particularly in the larger centers. That construction is way ahead of minimum fire and insurance standards. When the problem has been reduced to practical terms the industry will be found reconstructing and guarding its water level plants again way ahead of any minimum requirements. This is because it has been good business to do so.

The industry aim right now is to allay any unreasoning fears of those in the flood area as to what the oil industry will do for the future in maintaining the highest standards of safety for all.

But every oil man, not only all up and down the rivers in the present flood areas but elsewhere in the country, and every oil company agent, should be particularly on the alert for any proposed regulations as a result of these floods, and should notify his company, his oil association or the American Petroleum Institute, 50 West 50th street, New York City, AT ONCE. It is most essential to the protection of the industry, for its representatives to be in touch with proposed legislation and regulation as early as possible.

The oil industry for almost 25 years now has been working effectively and with excellent results with the National Board of Fire Underwriters, of New York, the National Fire Protection Association at Boston and, through them, with various fire chief and fire marshall and other organizations interested in fire protection. Competent engineers and executives from the oil industry for years have sat on a committee of the National Fire Protection Association whose duty it has been to consider the development of the industry and to recommend standards for construction and regulation in all branches of the oil industry all over the country. Few regulations have eventually gone into effect but have been drafted or redrafted by this committee.

The special committee that has been appointed by the National Board of Fire Underwriters is solely advisory. However, it is composed of men who are immediately concerned with the flood problem and who, in their private capacities, have jurisdiction over it, either as representing the public or the oil industry. A fair consideration and solution of the problem can be expected.

But every oil man everywhere, where is it possible that a flood problem can be raised, is urged to be constantly on the watch for any discussion of change in present regulations and to let his company, his oil association or the American Petroleum Institute know AT ONCE regarding it.

Lewis Loses

General Motors granted John L. Lewis and his vertical auto union only what it said it would at the start of the "sit down" strikes. However, the truce is already being hailed by Lewis' workers as a "wonderful victory" and as such it will probably be told to oil industry workers, as Lewis' oil union carries on its present organization work.

Against this statement of Lewis and his followers is that of President Green of the American Federation of Labor, who publicly charges Lewis with "surrendering." Many of Green's craft unions have representation in the oil industry, particularly in refineries and shops. Oil, therefore, can expect considerable turmoil as the two union leaders battle for members in it.

One outcome of the strike is a proposed compulsory arbitration law which is being considered by officials and legislators of Michigan, whose governor acted as volunteer arbiter of this auto strike. Compulsory arbitration is violently objected to by labor leaders and always has been and it is not likely by employers, but with labor unions forcibly seizing and holding property and forcibly and even violently preventing owners and their employes from using or having access to their own property, it is bound to be only a question of time when the public will step in and insist upon law and order.

The cowardice, and worse, of public officials in failing to enforce the country's peace laws in strikes, in even conniving with labor leaders for the violation of those laws, has developed an intolerable and dangerous situation. When a cabinet officer, the madam secretary of labor, undertakes to condone and even justify labor unions in taking physical possession of other people's property and using it for their own purposes, it would seem to be about time that citizens found out just what rights they have when they have paid their hard earned money for something.

Some day, maybe, these citizens will follow the noble example of many labor leaders and go buy a gun, something they can keep tight hold of.

Putting the Supreme Court Argument in Simple Terms

Below is a plain and simple statement of the discussion between President Roosevelt and his opponents over his proposal allegedly to "pack" the U. S. Supreme Court. We heartily commend it for your earnest study. If a measure of political bias in it irritates any Roosevelt followers, let them think that all this is taking place in the reign of Hoover, Harding or McKinley.

We do not know who wrote this, nor who may hold the copyright, if any, on it. If copyright there be on it, we offer our apologies and will give full credit if the owner will let us know. But the statement is too valuable to our thinking to hold up until the copyright owner is found. J. H. Hill, attorney for The Texas Co. at Tulsa, Okla., sent it to us and he does not know the author either. But read it. (W. C. P. Editor.)

Politicians

A statesman is only a successful politician. If he wins, many people follow him blindly. They forget that he is a man controlled by the same motives and impulses as all other men. He may be better than the average; he may be worse; but you can count on one thing—that ambition is the besetting sin of all politicians.

Politics is one of the oldest trades in the world. Every President that this country ever had was a politician. Every Congressman and every Senator, every Governor of every State and every candidate for public office is a politician. All of the New Dealers are politicians. Roosevelt is a politician. So are Farley, Ickes, Wallace, Hopkins, Tugwell, and Miss Perkins. They have the same ambitions that every politician in history has had—to get in office and to stay there.

History is mainly the record of what good politicians did for their people and what bad politicians did to them. By and large, the record is not very good. Unfortunately, there have been more bad rulers than good ones.

History is full of politicians who started out as good rulers and wound up as bad ones. Napoleon was a very good ruler for France at first. He put France on its feet after a terrible revolution. Then he became ambitious to be emperor of all Europe, and millions of Frenchmen died because of his lust for power. He told Frenchmen they were dying for the glory of France. They thought they were. But we know better—they died because Napoleon's ambition for more power.

Napoleon Not Alone

That was the great sin of Napoleon. But he does not stand alone. Nearly all of the wars which have been fought during the entire course of history were brought about by the ambition of rulers to extend their domains, to magnify their power, and to glorify themselves.

The American revolution was fought because the people of this country did not like the way the English politicians ruled them. After they found they had no more peaceful ways left to get rid of these bad rulers they revolted against them and by bloodshed established a country where they and their children and you and I and our children could live in freedom from political interference with our private lives. When the colonists won their liberties, they were faced with the problem of choosing a new set of politicians to rule them.

The leaders of the American colonies were very wise men. They knew that they had to have politicians. But they had all studied a lot of history and they knew there were more bad politicians than good ones and that the bad ones wanted the citizens' hard-earned money, seized their property and, when the citizens protested, threw them into jail.

They also knew why this was. It was because the citizens had to obey the laws the politicians made, but they had no way to make laws the politicians had to obey.

So these wise men decided to set up our government in such a way that, before it was turned over to the politicians to run, it would be fixed so that those politicians would have to behave themselves.

Law for Politicians

The way they did it was to write a Constitution. The Constitution is a law made by the people to govern politicians. It tells them what they can do and what they can not do to you. It tells them they may have so much power to control you and no more.

But since no law is any good unless somebody enforces it, these wise men set up an independent court that the politicians do not control, so that if the politicians did seize power that was not given to them by the Constitution, there would be someone who could say to them, "You can't do that." This is the Supreme Court. Our Constitution and our Supreme Court were the first effective schemes in all history to control politicians and limit their power to govern and to tax.

As a result, in this country we have free speech because if the politicians tried to put someone in jail for attacking them the Supreme Court will say, "Let him alone."

Also, we have freedom of worship, which many other nations have lost. And our politicians can't take your money or your property from you without paying you for it, like they can in so many other countries today.

These are only a few of the things we have because we have a law (the Constitution) to govern our politicians and a Court to make them obey that law.

Curbed Politicians Bring Prosperity

What has happened in this country under this law to keep politicians in their places? Since it limited their power, it has prevented them from meddling in our private affairs and plundering us. As a result, our cost of government, until the last few years, has been low and this country grew and prospered like no country in all history.

Millions of people from other lands where they were tyrannized by their politicians came over here. My father and mother did and so did the fathers and mothers of most of you. And if the immigration laws let them, there would be millions more who would rush over here from Europe and the rest of the world. Today it is still the finest and best country on earth to live in.

Ever since the Constitution was established, politicians have schemed to get around it—to get more power than it gave them and to weaken the Supreme Court. They have frequently tried to limit the Court's power and, as usual, are talking about it again. They have tried to get the people angry with the Court for its decisions. They have tried to scare the people by saying the country would go to pot after some of the Court's decisions. That is what President Roosevelt tried to do when the Supreme Court threw the NRA and the AAA out.

Supreme Court Is Safeguard

But in the past all of these attacks have failed. The people of this country still realize that the Supreme Court is the only protection they have against politicians seizing more power—the only protection of our rights we have short of revolt.

Of course, politicians do not like to have their power limited by Constitutions. They would like to substitute their own schemes and make you obey their will instead of having the rights the Constitution says you shall have.

Now a lot of politicians have been telling you the Constitution should be amended to give them more power and have been promising you a lot of things for the liberty they want you to give up. Well, that is what Hitler said too, but I don't want that kind of a bargain. I want no politician as my nurse-maid. I want none of his brain-trust planning me and my life and, if you knew politicians and brain-trusters as I do, neither would you.

What these politicians really want is more power to tax you and to order you around, which means less liberty for you because the more power you give them, the more they have to say about what you do, and the less you have to say about what they do to you.

And, if you didn't have a Constitution to control them and a Court to enforce that Constitution, their power would be unlimited once they got in office. They wouldn't even have to run for re-election if they didn't want to. Then your only remedy to get rid of them would be revolt, just as it was the only remedy Washington and Jefferson had. And we must not have revolt.

Whenever any politician says to you, "I want more power" and makes a lot of promises about what he will do for you if you give it to him, think of what has happened in Russia, Germany and Spain and ask yourself, "What does he really want to do to me?"

"Carpet-Bagger" Rule Similar

If you don't think that what is happening in those countries can happen here, read the story of what happened to the people

in the southern states after the Civil War. After the North won, Congress deprived the people of the South of their votes and sent Northern politicians and the army into the South to rule them. The years that followed are the blackest pages in our political history and the South has never fully recovered from the way those "c a r p e t-bagger" politicians robbed and plundered them. Read the history of "Reconstruction" in the South and you will understand what happens when politicians take the Constitution away from the people. (Read "Gone with the Wind"—Ed. N.P.N.)

This is also a good example of what happens under a centralized government without states' rights. Politicians, regardless of party, are all the same kind of people—they are ordinary human beings, except that they are ambitious for power and when they get it they want to keep it. And the lesson of history is that you don't dare trust any of them very far.

How, then, are you and I to choose our politicians? We can never be sure in advance that they are going to be good ones. We only judge on their records whether they have been honest and have tried to keep their word. If a politician's record shows he does not keep his word, we are fools to trust him further.

What is the politicians present record? Certainly business is better. Any child could make business better at the candy store if you let him spend all the money he wants—until you have to pay the bill. I can make business better that way. So could you.

Broken Promises

The rest of the record is one of broken promises. After taking a most solemn oath to uphold the Constitution, men in high position have ordered Congress to pass a law "in spite of any doubts, however reasonable, regarding its constitutionality." Mind you, he ordered Congress to act against its own oath of office. What he was really saying was, "I don't like the limits which the Constitution places upon my power and even though you swore to uphold it, I want you to ignore it.

A certain politician also referred to the Constitution as a "horse and buggy" instrument. Well, maybe it is, but if you were traveling through a strange country on a dark night with no stars and no signs to guide you, which would you rather ride in—a horse and buggy that you drove yourself, or a high-powered car driven by someone else at top speed without brakes?

Ellick Botts

WRITES A LETTER

Something Needed, Okla. Discovers,

To Keep Taxpayers from Leaving

To the Editor:

Well, it has been a week or so since I have reported to you on the state of things in the Mid-Continent and there has been no end of excitement, which accounts for my failure to write. There has been more drama out here than we have had since Bill Murray was governor and Cousin Cicero was deploying his troops through the slush pits of Oklahoma City.

Before I get into our biggest news, I want to express my gratitude to our President for showing us the way out of an ugly situation in my home precincts. Here in Bustgullet township we have a constable that is about 70 years old, although the stubborn old devil claims he is just as good a man as he ever was. The township trustees put him in 25 years ago and told him the job was his for life.

Well, a delicate situation recently arose. The trustees issued a proclamation declaring that all the farmers would have to use tractors to do their plowing. This was based on soil conservation and increasing the productivity of the land as, according to the trustees, that is the only way you can plow deep enough to do the right kind of job.

But the constable belongs to a by gone age and he refused to enforce the decree. He claimed the horse was good enough for those who didn't want to buy tractors and he put it all on the broad ground that it was up to the farmer himself to decide. Of course that is specious reasoning of the worst kind. This constable is at heart a chain harness man and he doesn't like progress.

The justice of the peace sided with the constable and an impasse has existed for several months. But we now know what to do. There is nothing to keep us from having a three-judge court in this township and three constables, so the trustees are going to fix it up that way and provide for majority rule of these new boards. It will mean a little more expense but new ideas will have free play. It is understood that the two local agents for tractors will be appointed and the other places will be filled with gasoline dealers.

Reversal of Form

Now for the big news. Down at Oklahoma City there has been a sudden reversal of form and the governor and several of the legislators are now saying that something must be done to encourage rich men to stay in Oklahoma. As you know, they have been harassing them for some years, raising the tax rate biennially and sometimes oftener. Quite a few have moved to Texas and some to Kansas.

The legislature was warned a long time ago that this would happen. I remember that L. B. Jackson, one of our producers, told a taxation committee a couple of years ago that these oil men "flush easy and fly far." Well, they went right ahead putting on income taxes and sales taxes and gross production taxes and proposing numerous other kinds down to one requiring you to have a hand-painted frame around your auto license tax, at a slight additional charge for handling and wrapping.

Not many of our reputed millionaires who left the state made any announcement. They just let the tax collectors find it out when they went calling around to see why the money hadn't been sent in on time. And the news is now out in a big way that they have gone. So, the governor says something must be done about it.

Game Laws Needed

I don't understand that they will offer any bonus to a man of wealth to get him to reside in our midst. Mainly, what is proposed is some kind of laws that will protect the men of money during certain seasons and set up some standards of sportsmanship. The state officials had become very careless and were shooting them whereever they sat, even potting them in coveys. It now appears that there is strong sentiment for some policy that will prohibit such wholesale slaughter and permit the shooting of singles, only, and then on the wing. It may be that no firing will be allowed except as one of the millionaires is found crossing the state line.

Now, I personally do not know any of these men who are reputed to have it stacked away in big bales and I have observed them at a respectful distance only. To me they have always looked like any of the rest of us, wearing the same badgered expression that you see on the face of the fellow who is wondering how the hell he is going to meet that paymen on the car and have Junior's teeth straightened and at the same time stall off the mortgage company a few days. It may be that the statesmen are beginning to discover some of the facts of life, such as that a big income means a correspondingly big outgo. On second thought, I discard that theory.

Will Be Missed

The real reason for the compassion, I suspect, is the realization at last that, if the boys who make the big deposits in the banks are chased off to more friendly states, the people of average means who really pay most of the taxes will have to go along and that will leave things in the hands of those who pay nothing at all. And then who would be left to throw a little legal business, such as title work, to the lawyer who happens to be a member of the legislature?

Well, that is one hopeful theme. Another bit of news is that the commonwealths of Oklahoma and Texas have reached an accord on the matter of fishing in the Red River, which forms the boundary line. It required a trip by a committee of the Oklahoma legislature and several conferences, but peace now rests securely on the scene. All that is now needed is some fish in the river and we will be set to go.

Yours,
Ellick Botts.

Underwood Honored

WICHITA FALLS, Feb. 22.—R. Lee Underwood, independent producer, has been elected president of the North Texas Oil and Gas Assn., succeeding R. A. King. First vice president is N. H. Martin; second vice president is P. F. Gwynn and J. Ed Rewin is secretary.

Texas Proration Law Is Extended Without Change

N. P. N. News Bureau
By LAWRENCE E. SMITH

TULSA, Feb. 20. — Without change or modification, the Texas senate extended the conservation law of the state for a two-year period, following earlier action by the house. The law was due to expire next Sept. 1.

Opposition to extension of the law, which includes provision for basing proration on market demand, was not strong in either branch of the legislature. A final stand was made in the senate by Sen. Joe Hill, of Henderson, who has been particularly indignant over the operation of the Texas law, which authorizes confiscation and sale by the state of "hot" oil.

His contention, set forth in a report made recently by a senate committee which he headed, and repeated by him on the senate floor, was that sales of confiscated oil had usually been made to the original owner at nominal prices and that receivers' fees had diverted much of the proceeds from the treasury of the state.

He tried unsuccessfully to put through a substitute bill which would extend the proration law three years but would provide that no receivership fee in confiscation proceedings would exceed 10 per cent of the amount realized at the sale; that the oil should bring, at open sale conducted by the sheriff, at least two-thirds of its true value and that confiscation suits should be held in the counties where the oil production originated. Under the Texas law, suits may be filed by the state in Travis county, where the state capital is located.

Hill's Charges

Hill asserted that, in at least 50 per cent of the cases, the suits, answers, judgments and sales of confiscated oil back to the defendants were all made the same day and that his figures had been obtained from the records of the attorney general.

Sen. Clint Small, Amarillo, defended the confiscation statute and told Hill that his—Hill's—quarrel was with its administration. If the acts complained of by Hill have been committed, the remedy is in impeachment proceedings or grand jury action, Small said.

About the time this debate was going on Attorney General William McCraw was starting proceedings to confiscate 1,732,311 barrels of oil allegedly produced in violation of Texas Railroad Commission orders. The oil described has been in storage for many months and much of it was produced in the days before the enforcement machinery, state and federal, was established under laws that stood the test of litigation.

Survey of "Hot" Oil

McCraw and C. V. Terrell, chairman of the railroad commission, said they believed the 37 suits which were filed covered about all the illegal oil that is stored in the East Texas field. Suits were based, they said, on a survey made by commission agents showing the alleged "hot" oil in 54 open pits and 33 steel tanks in Gregg, Smith, Rusk and Upshur counties. Approximately 150 defendants were named. The total amount was classified as 1,069,821 barrels of fuel oil or topped crude of low gravity; 459,131 barrels of weathered crude, reduced in gravity by exposure, and 167,357 barrels of crude fairly close in gravity to fresh East Texas crude.

It is unlikely that this oil, if sold, will bring the current market price. The Federal Tender Board has refused to clear for interstate movement oil that has been "blessed" through confiscation proceedings. It takes the position that, as the Connally law forbids interstate and foreign movement of oil produced in violation of state orders, "hot" oil keeps right on being "hot".

The confiscation law itself is under attack in two suits in Texas, one of which has reached an appellate court. It is probable that the question of constitutionality will be settled before sale has been made of the huge quantity of oil filed on by the state.

Little if any of the oil involved in the new suits was produced in recent months. The railroad commission, following its survey made a year and a half ago, established a close watch on all pits and tanks in which the oil under suspicion was stored. None has been added and none taken away, commission agents say.

One feature of the state's new suits is that the court will be asked to name one receiver to have charge of the whole affair. He will be compensated on the basis of expenses only. Revenues from the sales, if made, will go into the general treasury of the state as the law provides.

Companies Asked to Explain Higher Texas Retail Price

By Teletype
N. P. N. News Bureau

TULSA, Feb. 22. — The usual routine of a statewide hearing in Texas was broken Feb. 20 when Col. E. O. Thompson, member of the Texas Railroad Commission, called upon the heads of oil companies to submit explanations of recent price advances in gasoline, which he said were out of line with the crude price raise of Jan. 28.

He took as his example the advance in Panhandle crude prices, asserting that the raise was 10 cents per barrel and asked an attorney for the Phillips Petroleum Co. what gasoline recovery the company realized. On being told that the average was about 65 per cent, or 25 gallons on the barrel of crude, Thompson asserted that the gasoline price had gone up one cent per gallon and that the consumer "is being called on to pay 15 cents too much a barrel".

He then directed, from the bench, that explanation of the price discrepancy be submitted to the commission by all companies that participated in the advance and that the statements be signed by the heads of the companies.

Increases Asked

The hearing developed numerous requests for increases in allowable production. The federal Bureau of Mines forecast for demand for Texas crude for March was 1,256,600 barrels daily, an increase of 53,200 barrels daily over the same agency's February estimate, but far under the allowable as set by the railroad commission. Allowable on the first of this month was 1,329,378 barrels but, by Feb. 19, this had been increased through adjustments and new completions to 1,365,194 barrels.

Secretary of Interior Ickes, who had been in Texas for inspection of several federal power and flood control projects, attended the hearing and spoke briefly. He commended the conservation work of the commission, asserted that no complaints are now being made concerning federal agencies in East Texas since a drastic reorganization was made, and said that those agencies were working in harmony with the state forces. Enforcement of conservation laws had raised estimates of recovery in East Texas by 600,000,000 barrels, "which is a whole lot of money at $1.27 a barrel and I predict the price will go higher".

Nominations to purchase crude called for by the commission ran into high figures, as usual. The March demand, on the basis of these figures would be 1,565,231 barrels daily. That these will be scaled down considerably by the commission when it writes its order was indicated by Thompson's assertion that the commission had about arrived at the true demand figure in recent orders.

Crude Stocks' Increase Gains Momentum

N. P. N. News Bureau

WASHINGTON, Feb. 22. — The slight increase in stocks of crude petroleum which showed up at the end of the week of January 23-30 was augmented by an increase of 732,000 barrels during the following week, making Feb. 6 stocks total 286,116,000 barrels, a gain of 905,000 barrels over the Jan. 23 figure, according to Bureau of Mines figures.

They were still more than 25,000,000 barrels less than stocks a year ago of 312,359,000 barrels, and almost 30,000,000 less than the high point of 315,481,000 barrels reached last May, since when they have shown a decrease almost every week up to the end of January.

Stocks, by grades, for Feb. 6 and Jan. 30, follow:

Stocks of Crude Petroleum Jan. 30 and Feb. 6, 1937

(*Barrels of 42 gallons*)

Grade of crude oil	Jan. 30	Feb. 6	Change from Jan. 30
Pa. Grade	4,136	4,104	— 32
Other Appal.	801	819	+ 18
Lima-N. E. Ind.-Mich.	778	789	+ 11
Ill.-S.W. Ind.	9,608	9,625	+ 17
N. La. & Ark.	10,444	10,683	+239
W. Texas-S. E. New Mex.	27,507	27,796	+289
East Texas	20,047	20,120	+ 73
Other M.-Cont.	114,382	113,921	—461
Gulf Coast	23,617	24,013	+396
Rocky Mt.	25,904	25,844	— 60
California	29,365	29,650	+265
Foreign	1,645	1,572	— 73
Total reported weekly	268,234	268,916	+682
Estimates, unreported stocks	17,150	17,200	+ 50
Total stocks	285,384	286,116	+732

OMAHA, Neb., Feb. 22.—Arch Stafford, Quaker Petroleum Co., is recovering from a three weeks influenza illness.

Code Rescission Opposed by Cal. Oil Executives

By JACK N. WESTSMITH
N. P. N. News Bureau

LOS ANGELES, Feb. 20.—Reasons why the Federal Trade Commission should not rescind its approval of the 1931 national code of petroleum marketing practices are to be advanced by California oil men at the public hearing in Washington, Feb. 24. This is an important matter to west coast marketing companies which are operating under interpretation of rules of that code.

A contingent of oil men from the Pacific coast are leaving for Washington and they expect to have all the answers as to why this code should not be revoked, at least, not until something new is offered to take its place.

Large Delegation

The group will represent independent and major interests in producing, refining and marketing divisions of the industry and will outline what the code has meant in the way of a stabilized market for crude and refined products on the west coast.

Among those scheduled to be present at the hearing will be: J. r. Bushnell, Seaside Oil Co.; Rush M. Blodget, Oil Producers Agency; P. E. Allen, Associated Oil Co.; R. T. Herndon, The Texas Co.; V. H. Kelly, Richfield Oil Co.; C. V. Larzelere, Signal Oil Co.; J. Howard Marshall, Standard Oil Co. of California; E. L. Miller, Regional Code Compliance Committee; W. H. Morgan, Bush Oil Co. and representing the Independent Refiners Ass'n.; B. A. Rowell, Gilmore Oil Co.; Felix Smith, Standard Oil Co.; and Lawrence Vanderlick, chairman of the Central Committee of California Producers.

While observers close to the situation believe the commission will rescind its approval of this early code, it is hoped such action can be delayed until a substitute measure can be worked out which would be applicable to petroleum marketing practices throughout the entire country. At present, the Pacific coast is the only territory abiding by provisions of the 1931 code, or any code for that matter.

Agitation for a marketing code of some kind was started soon after the Supreme Court NIRA decision, in May, 1935, ruled out the Pacific Coast Petroleum Agency. Termination of the agency agreement threatened chaos to a marketing stability built up during the life of that compact.

1931 Code Revived

The result of this interest was to revive the general national code approved by the FTC in 1931 and announced by that body to still be in effect. While not perfect, this set of rules was thought better than no code at all. It was somewhat rusty through lack of use, but seemed to offer a framework for the specific requirements of the west coast petroleum industry.

Provisions of this general code were then interpreted to apply to marketing problems in the western territory and were adopted by the Regional Code Compliance Committee for the Pacific Coast marketing area in April, 1936.

By interpretation, the oil companies sought to do two things; one was to make principles as embodied in the national code applicable to conditions in this territory. In other words, to translate the generalities into marketing terminology so marketers in this territory could apply them.

The other objective was to limit the general principles of the code so that their application would not conflict with the decision of the U. S. Supreme Court in the Sugar Institute case. This was accomplished by removing any prohibition against deviation in prices but making it a requirement that public notice should be posted where any deviation in price was made.

Posts Own Prices

Under interpretations of this rule, the supplier is required to post specified prices on motor fuel and kerosine but his prices do not have to conform to those posted by his competitor. "The rule contemplates that each one will determine for himself the prices at which he will sell his products and that he will post these prices on his premises at a place conveniently accessible during business hours to the public" the code reads.

Deviations from these "generally applicable" posted prices, under the California interpretations of this rule, must be posted as soon as any delivery is made or offer is made to sell at prices different from these postings.

Full details of payment or absorption of rent, cost of water, heat, light, power, taxes, license fees or other expenses, must also be posted at the respective places from which deliveries of gasoline and kerosine are made.

This rule, which is "K" in the 1931 authorized code, is the real crux of the document. While some deviations in price have been made, inadvertently for the most part, publication of the facts surrounding such deals has cleared the air and has removed suspicion of secret rebates and allowances offered in soliciting new dealer accounts.

Analysis of the 1931 code, as interpreted by the California industry, and the so-called mid-western code, now before the Federal Trade Commission for approval, shows great similarity. The California code workers had to stay within limits of the general principles of the 1931 version as they existed and could not include certain provisions known to be desirable.

Two Codes Compared

One essential difference between the two codes is that the one sponsored by the mid-western industry provides more flat prohibitions of practices considered unfair, whereas the California interpretations said these practices could be followed as long as their details were made public.

The California industry has not been confronted in recent years with the evils growing out of the practice of loaning or leasing equipment. The practice is not observed in the western territory. Although the rule covering this practice was interpreted in the California version, it did not carry the same importance as it might in a code applicable to other sections of the country.

Richfield Makes Profit Of $615,568 in 1936

N. P. N. News Bureau

LOS ANGELES, Feb. 20.—Richfield Oil Co. of California and subsidiaries showed net profits of $615,568 for the year ended Dec. 31, 1936, after all charges including allowance for federal income taxes. This compares with a net loss of $2,160,770 in the preceding year.

William C. McDuffie, reorganization trustee, showed in his report filed with the federal court that sales of crude oil and petroleum products for the year totaled $28,940,876, compared with $26,629,880 in 1935. These figures are exclusive of sales tax.

Net income before deducting depletion, depreciation and losses on property retirements, amounted to $4,482,361, against $1,546,595 in 1935. Depletion and depreciation charges plus retirements and losses amounted to $3,866,793 in 1936, compared to $3,741,868 in 1935.

Confer With FTC On New Oil Code

N. P. N. News Bureau

WASHINGTON, Feb. 22.—Progress toward approval by the Federal Trade Commission of a set of fair trade practice rules for the petroleum marketing industry was made here the past week when members of the three-man industry committee conferred with officials of the commission, received several suggestions, then later met to discuss proposed rules to be included.

After the FTC meeting the committee members said that only minor changes, chiefly in wording, had been suggested to make acceptable the code drafted following a series of code conferences in Chicago last winter.

The proposed changes will be incorporated into the code, and it probably will be submitted to the trade practice division of the commission before long.

Commission action no doubt will be followed by submission of the approved code to the industry for criticisms or suggestions, and a date set when these may be heard.

Meanwhile, protests against proposed recission of the 1931 petroleum code are reaching the commission, and indications are that it will be asked to continue the 1931 code at the hearings Feb. 24. As now drafted, the proposed new trade practice rules would affect only those states east of the Rockies, while the 1931 code is chiefly in effect on the Pacific Coast.

FTC officials have indicated, however, their belief that companies protesting the recission of the 1931 code may ask its retention, at least until adoption of the new code, then ask to be included under the new code.

Probability that the proposed fair trade practice rules for the gasoline pump industry, on which hearings were held more than a month ago, will be sent to the commission soon was expressed today by Judge George E. McCorkle, director of the Trade Practice Division of the Federal Trade Commission.

Members of the three-man code committee for the petroleum marketing industry are C. E. Arnott, vice-president of Socony-Vacuum; Paul E. Hadlick, secretary, National Oil Marketers Assn., and Wilmer Schuh, president of National Association of Petroleum Retailers.

Lubricants And Corrosion Tests A.S.T.M. Subjects

N. P. N. News Bureau

CLEVELAND, Feb. 22.—Symposia on lubricants, and on corrosion testing of metals will mark the regional and committees meeting of the American Society For Testing Materials at the Palmer House, Chicago, March 1-5.

The lubricants symposium is scheduled for March 2, and will include four papers by well known technologists on lubrication, followed by prepared discussion by other technologists. The formal papers are:

Engine Deposits—Causes and Effects—W. A. Gruse, Senior Fellow, Mellon Institute of Industrial Research.

Automotive Bearings—Effect of Design and Composition on Lubrication—A. J. Underwood, Assistant Head, Power Plant Dept., General Motors Corp., Research Laboratories Section.

Addition Agents for Lubricating Oils—G. M. Maverick, Standard Oil Co. of New Jersey.

How to Select a Motor Oil from the Standpoint of the Consumer—W. S. James, Chief Engineer, Studebaker Corp.

H. C. Mougey of General Motors Corp., will be in charge of this symposium.

On Tuesday evening, March 1, the Symposium on Corrosion Testing, under the direction of F. N. Speller, National Tube Co. will be presented. The list of papers includes:

Principles of Corrosion Mechanism and Testing—R. B. Mears, Aluminum Co. of America, and C. W. Borgmann, National Tube Co.

Atmospheric Testing—H. S. Rawdon, National Bureau of Standards.

Salt Spray Testing—E. H. Dix, Jr., Aluminum Co. of America.

Intermittent Immersion Testing—D. K. Crampton, Chase Brass and Copper Co., Inc.

Total Immersion Testing—R. J. McKay, W. A. Wesley, F. L. La Que, The International Nickel Co.

Soil Corrosion Testing—K. H. Logan, I. A. Dennison and Scott Ewing, National Bureau of Standards.

During this week numerous committees will meet to discuss the work each has been carrying on. These committee meetings include those of A-5, on Corrosion of Iron and Steel; D-2, on Petroleum Products and Lubricants; D-3, on Gaseous Fuels; D-4, on Road Paving Materials; D-8 on Bituminous Waterproofing and Roofing Materials; Joint Committee on Effect of Temperature On Properties of Metals; Sectional Committee, Z-11, on Petroleum Products and Lubricants.

General arrangements for meetings will be made by the Chicago District Committee, under W. A. Straw of the Western Electric Co. A regional meeting dinner will be held March 3.

New Natural Gasoline Plant

N. P. N. News Bureau

TULSA, Feb. 22.—The Empire Oil & Refining Co.'s new natural gasoline plant in the Stone sector of the Burrton pool in Reno county, Kansas, is expected to be placed in operation within the next 10 days. The plant has a capacity of 30,000,000 cu. ft. of gas daily, from which is expected to be manufactured 18,000 gallons of natural gasoline.

Barnsdall to Build Texas Refinery

By Teletype
N. P. N. News Bureau

TULSA, Feb. 23.—Barnsdall Refining Co., has signed a contract with the Frick-Reid Supply Co., for the construction of a refinery at Corpus Christi, Tex., according to information here. The plant will be located on a tract recently acquired by Barnsdall near the city. The new plant, according to reports, will have a capacity of 5000 barrels daily, and will include a Dubbs cracking unit. Officials of both the Barnsdall and the Frick-Reid companies were in Chicago today to complete the details.

The Barnsdall Oil Corp., has been active on the Gulf Coast for some years and has become a producer in the Placedo and Refugio fields, and has a large interest in the Flour Bluff field. All these fields are within short pipeline distance of Corpus Christi.

Petromex to Be Nationalized

By Teletype
N. P. N. News Bureau

NEW YORK, Feb. 23.—Announcement that the Petroleum Co. of Mexico (Petromex) will be dissolved and plans for a new company, National Petroleum Co. of Mexico, to be entirely government-owned and controlled are looked upon in some oil quarters here as indicating that the government plans complete nationalization of the industry there. The government owns a 51 per cent interest in Petromex.

Present plans, it reported, call for the new company to take over all permits for new drilling and to take over the present leases of foreign oil interests whenever they expire. No indications of attempts to take over refining or pipelines have been reported, however, and some feel that government control may stop with production; others indicated they believed the new company would be given concessions in other lines, as well as being allowed to pay lower wages and taxes, and try to force the foreign interests out of the entire picture.

Notices have been printed in the Mexican Official Gazette that a meeting of stockholders of Petromex will be held March 1, to carry out the liquidation plans.

Gasoline Stocks To Be Lower Is Bureau Of Mines Forecast

N. P. N. News Bureau

WASHINGTON, Feb. 22.—The oil industry will enter its high-consuming season in April with gasoline stocks 2,500,000 barrels lower than last year, according to the U. S. Bureau of Mines.

The bureau, in making this prediction, is counting on a continuance of mild weather, which means increased consumption of gasoline, accompanied by a slackening in fuel oil demand. Both factors tend to slow down additions to gasoline stocks.

For the month of March, the bureau forecasts an increase of 3,100,000 barrels in gasoline stocks, as against an estimated increase of 5,870,000 barrels for February, which is three days shorter than March.

Stocks of finished and unfinished gasoline at the end of March will total about 72,000,000 barrels, compared with 74,485,000 barrels a year previously, according to the bureau's figures.

However, additions to stocks have been running above the bureau estimates, with January's increase reported at about 6,000,000 barrels, against an estimated increase of 5,060,000 barrels.

Daily average production of crude oil for March to meet the demand is estimated by the bureau at 3,159,000 barrels, or 90,400 barrels higher than the estimate for February and 420,100 barrels (15 per cent) higher than the estimate for March, 1936.

Domestic demand for motor fuel in March has been placed at 39,100,000 barrels, or nine per cent above the actual of March, 1936. Besides this, gasoline exports will reach 2,300,000 barrels, the bureau says.

Natural gasoline consumption at refineries is estimated at 6.1 per cent, or 2,260,000 barrels. Percentage of yield for straight-run and cracked gasoline is figured at 43.59.

Imports of foreign crude were estimated at 2,900,000 barrels, with exports at 4,000,000 barrels. A figure of 2,800,000 barrels was included for "fuel and losses."

With benzol and direct sales and losses of natural gasoline estimated as 850,000 barrels, the bureau calculates production of gasoline at 43,650,000 barrels in March, distributed among the districts as follows: East Coast, 6,510,000 barrels; Appalachian, 1,590,000; Indiana-Illinois, 7,430,000; Oklahoma, 2,750,000; Kansas-Missouri, 2,620,000; Texas Inland, 3,490,000; Texas Gulf, 9,690,000; Louisiana Gulf, 1,650,000; North Louisiana-Arkansas, 920,000; Rocky Mountain, 950,000, and California, 6,050,000.

Recommended levels of required daily average crude oil production by states for March, together with the February forecast figures and the December actual production figures, follow:

State	Forecast March, 1937	Forecast Feb. 1937	Actual Prodn. Dec. 1936
	(Figures in Barrels)		
Texas	1,256,600	1,203,400	1,229,000
Oklahoma	590,700	581,900	605,400
California	570,900	573,300	583,800
Louisiana	240,000	225,100	235,500
Kansas	178,000	170,000	173,900
New Mexico	88,200	81,600	87,000
Pennsylvania	49,000	49,400	49,500
Wyoming	42,200	41,900	45,000
Michigan	30,300	29,400	27,300
Arkansas	28,500	28,500	26,700
Kentucky	16,500	16,300	15,900
Montana	14,600	14,700	16,700
New York	13,500	13,000	14,400
Illinois	12,900	12,700	12,500
Ohio	10,300	10,500	10,400
West Virginia	10,300	10,200	11,000
Colorado	4,300	4,500	3,800
Indiana	2,200	2,200	2,300
Total U. S.	3,159,000	3,068,600	3,159,100

Operations Up 17%

PHILADELPHIA, Feb. 22.—Production of refined petroleum products at the Point Breeze refinery of the Atlantic Refining Co. during 1936 showed an increase of 17 per cent over 1935, the company announced today. Production of gasoline showed an increase of 15 per cent. For lubricating oils the increase was 20 per cent.

Aviation 'Lubes', Fuel on Program

N. P. N. News Bureau

NEW YORK, Feb. 22.—A session on fuels and lubricants will lead off the National Aeronautic Meeting sponsored by the Society of Automotive Engineers, March 11 and 12, at the Mayflower Hotel, Washington.

This session, under the chairmanship of A. L. Beall, Wright Aeronautical Corp., will be held the morning of March 11, the program being confined to two papers. One will be presented by D. P. Barnard, Standard Oil Co. of Indiana on "What an Octane Number is Worth in the Air" and the other by O. C. Bridgeman, National Bureau of Standards, on "Engine and Laboratory Tests of Stability of Aviation Oils."

Two sessions on engines March 12 will include the following papers:

Carburetion of Engines for Long Range Flight, by W. L. Losson, Wright Aeronautical Corp.

Flexible Exhaust Valve Seats, by S. D. Heron, Ethyl Gasoline Corp. and A. L. Beall, Wright Aeronautical Corp.

Lubrication and Cooling Systems for Aircraft Engines, by Weldon Worth, U. S. Army Air Corps, Wright Field.

In connection with the meeting, there will be an inspection trip through the National Bureau of Standards Laboratories. A banquet concludes the meeting the evening of March 12. C. H. Chatfield will be toastmaster.

Co-operating in the sponsorship of the meeting are the Aeronautical Chamber of Commerce of America, Air Transport Association of America, American Society of Mechanical Engineers and the Institute of the Aeronautical Sciences.

LINCOLN, Neb., Feb. 22.—L. L. Coryell & Son has made application for a radio station at Lincoln.

THE *Midwest* MARKETER

BY E. L. BARRINGER, N. P. N. CHICAGO NEWS BUREAU

One of the major battles on state gasoline tax rates is being fought now in Nebraska over a one-cent increase, with the revenue to be diverted for old age security purposes. Immediate action is anticipated, as the current one-cent emergency tax expires Feb. 28.

At a hearing in Lincoln last week a lengthy parade of opponents appeared before the committee against the bill. H. H. Hahn, secretary of the Nebraska American Petroleum Industries Committee; S. A. Wassum, Tekamah jobber; and Max Miller, head of the local retailers' association, put up admirable arguments.

Farmers also appeared, some as representatives of oil co-operatives, spokesmen for 1000 or more farmers. Traveling men also made known their opposition through a spokesman.

The only advocates of the bill, LB 158, to appear were a representative of the highway department, and a department inspector.

1935 Emergency

The present fight goes back to the 1935 legislature. Need for state funds on old age assistance was pressing then, and, as an emergency measure, an additional one cent was slapped on gasoline, as machinery already was in operation and it was easy to pull 5 cents, instead of 4 cents, out of the motorist. Opposition was quiet, on the plea of an emergency requiring a higher gasoline tax rate.

Now at this legislature, the first unicameral session, the governor throws in a "gas" tax bill for a 5-cent rate. Revenue is to be divided three ways, for highways 62 per cent to the state and 30 per cent to counties, for state old age assistance 8 per cent.

Opponents at the hearing last week charged a breach of faith as the 1935 one-cent raise had been accepted as an emergency tax. Opponents also pointed to the factor of the bill increasing costs to farmers (Nebraska does not exempt farm gasoline) many of whom require aid through seed loans.

Governor's Prod

A brisk fight is anticipated on the floor, as the bill now would have to go through as an emergency measure to prevent a return of the tax to the 4 cent level next week.

Those who purchased a Lincoln newspaper the evening of the hearing read a front page story from the governor's office on the bill. The governor reported he did not want to seem to be dictating to the legislature but he hoped for action before the present one-cent tax expires.

* * *

Praise for Downtrodden

Tax collectors, one time quaintly known as oil marketers, get some measure of praise from an editorial in a Lincoln newspaper last week.

The editorial concerned the legislature getting joint action with Iowa and South Dakota on building four bridges over the Missouri river, eastern boundary of Nebraska.

To speed up paying for the bridges, in addition to revenue from tolls, the editorial reported that it is proposed "to dip into the faithful old gasoline tax to the extent of 4 per cent."

* * *

Time About Up

The time limit for legislators to introduce bills is about up. In Nebraska the limit expired early last week. When the limit expires general legislative practice is to have bills introduced only through the governor.

After all the bills are in the hopper, industry knows about where it stands on legislative affairs and can concentrate all its attention on committee hearings and action on the floor.

* * *

"I Gotta Bill"

Final decision on the benefits of Nebraska's unicameral legislature are being reserved by most persons.

The 43 members of Nebraska's one-house legislature are acknowledged as being above the average legislator, as to experience and ability.

One point, however, seems to be that the elimination of one house did not eliminate politics on appointments. Other observation is that the legislator, whether a member of a two-house or a one-house body, is smitten with the affliction of "I gotta introduce a bill" to be known, and hundreds of bills were introduced in Nebraska this year.

* * *

Posted Price?

Under-the-canopy price cutting has been moved on in another direction by Nebraska Petroleum Marketers, but the proposal was killed in committee.

An amendment was sought to a price posting bill that would require selling at prices posted. Nebraska already has a price posting bill, but claimed to be unenforceable as one attorney-general held that the sales must be made at the price posted, but another attorney-general ruled that the posted price must be the maximum price, not necessarily the actual price.

Under the second ruling a posted price had little effect on under-the-canopy discounting.

Advocates of the bill were not interested in what price was posted, but that the posted price should be the actual selling price.

Montana Utility Bill is Killed

By Telegraph

HELENA, Mont., Feb. 22.—Bills which would have made natural gas pipelines and gasoline public utilities in Montana have been killed by the House of Representatives here.

The proposal of Rep. Ruffcorn (N.P.N. Feb. 17, p. 21) to place gasoline under supervision and regulation of the state public utility commission as a public utility was voted down by a count of 62 to 28, as majority voters explained their belief that Montana could not in any fashion determine the price of gasoline within her boundaries.

Ruffcorn himself, author of the bill, voted against the measure, so as to be able to move for reconsideration, although it is considered doubtful if any motion for reconsideration can carry, in view of the preponderantly adverse vote against the bill.

The pipeline bill would have made these lines carrying natural gas common carriers as well as public utilities.

WASHINGTON

By A. M. PETTY
N. P. N. Washington
News Bureau

From the Crown Block . . .

WASHINGTON, Feb. 22. Published hearings on the Connally "hot" oil law may be the year's best-selling oil book.

There wasn't any table-thumping or heated exchanges, such as make the headlines. The witnesses read their statements rapidly and answered questions in low, measured tones. So, the import of much that was said passed over the heads of those present and will not be fully appreciated until it is in print.

Liberal

Several times marketer-witnesses accused Senator Connally, Texas, presiding at the hearings, of being "unfair" in his questionings. But the Texas senator was surprisingly liberal in his handling of witnesses hostile to the bill bearing his name.

Believing, as he does, that the Connally Law does not in any way affect marketing, Connally displayed considerable patience in allowing the marketers to have their full say.

Madison Indictments Out

Not until the printed hearings are available, will it be certain just what did get into the record.

Senator Connally flatly declined to insert text of the Madison, Wis., oil indictments in the record, saying that it would be an unnecessary expense to the government since these documents have already been widely published.

But the report of the Michigan legislative oil investigation did get in.

Variety of Complaints

The ground covered in the testimony will surprise many readers of the printed hearings. Practically every kind of complaint the independent marketed has voiced since the dissolution suit against the old Standard Oil trust is covered.

One jobber got in a kick against the Treasury Procurement Division's system of "zone" bids which prevents independent marketers from getting a sizable slice of government gasoline and oil business. Another charged that a hike in railroad rates from independent refining points had cut off his source of supply.

Code compliance of the major oil companies during the NIRA days — especially marketing rules 4 and 6 about below-cost selling and subsidizing of marketing losses with pipeline and production profits, was discussed.

Commercial discount schedules and other marketing policies of the major companies, contractual difficulties of individual jobbers, narrowed margins and dozens of other complaints were itemized and documented.

Questions Relevancy

Once in a while Connally interposed to question the relevancy of some statement. But he usually let the witness go ahead and develop his point, biding his time until he could start cross-examining.

There may be enough in the record to pique the curiosity of the senatorial mind, should any large number of senators thumb through its pages.

It might be that there are the germs of another congressional oil investigation between the covers of that volume. Indeed, one jobber at the hearings concluded his indictment of the Connally Law—and the major oil companies—with a demand for a complete investigation of the oil industry by Congress.

* * *

Fighting the Majors

After hours of testimony, there comes the impression that perhaps some of these oil marketers, sincerely relating their grievances, are not fighting the Connally Law so much as they are striking at the major oil companies.

The majors want the law extended, they reason, so "we independents" ought to be against it. More than one jobber stated that he wouldn't be against the bill if the practices he was complaining about were cleaned up.

But despairing of this, they ball together all their bitterness against commercial discounts, narrowed margins and the like and let fly—hoping that in some way defeat of the Connally Law will solve their difficulties.

Welcomes Schuh

The list of those invited by Senator Connally to testify at the hearings included only one representative of the marketing branch—Wilmer R. Schuh, president of the National Ass'n. of Petroleum Retailers. The others invited were producers, refiners and government officials—state and federal. But so far as is known, no marketer opposing the bill was denied a chance to appear.

Schuh came to the witness chair after several hours of testimony by oil jobbers who had bitterly attacked the Connally Law. When Schuh stated his name, Senator Connally fairly beamed at him and his voice was warm with welcome as the NAPR chief sat down to strongly endorse the bill.

* * *

A Hot Potato

Senator Connally handled rather neatly the hot potato tossed at him by Harvey C. Fremming, president of the oil workers' union.

The question now is—how will Col. E. O. Thompson of the Texas Railroad Commission handle the torrid spud tossed in his direction by Fremming.

Go To Austin

When Fremming suggested an amendment be tacked on the Connally Law providing for maximum hours and minimum wages for oil workers, Connally snapped right back with the remark that the Texas legislature is now in session and that the union leader should be down at Austin seeking such legislation, if he thinks it necessary. Connally pointed out that such regulation by the federal government would be "unconstitutional" and might imperil the bill.

Of course, Connally prefaced this with suitable expressions of anxiety and sympathy for the well-being of the workingman.

Not Germane

But Thompson is in a different spot. Earlier in the hearings, the Texas railroad commissioner, prompted by Connally, declared that any labor amendment, such as the labor union was expected to propose, would not be "germane."

Now, along comes Fremming at the last day's hearings with the statement that Thompson "stated to me, in front of several people assembled in his rooms at the Rice Hotel in Houston, that while he could not consider the matter of stabilizing wages, that he believed that the 36-hour maximum work-week could be made a proper subject for amendment to this bill."

Fremming then stated: "I think on this occasion that I have just made reference to, Col. Thompson asked that we prepare an amendment, which was prepared in his presence, dealing with maximum hours of employment."

* * *

Routine Questions

In his questioning of marketer-witnesses, Senator Connally had several routine lines of questions, supplemented now and then by penciled suggestions from the gallery. His persistent, sharp cross-examination confused some of the witnesses.

Connally pressed several jobber witnesses with questions implying that their opposition was based on their inability to buy cheap "hot" gasoline. But he met with denials.

Balancing off the jobbers' complaints that their sources of supply had been dried up and that they were unable to buy in the open market, Connally forced some to admit that this was because of an unwillingness to pay the prices asked.

Views on "Hot" Oil

Another line of questioning followed by Connally was to ask the witnesses their views on state conservation laws, and, receiving an affirmative answer, demand to know why they opposed the federal government—as in the Connally Law—helping the states enforce such laws.

By skillful questioning, Connally drew the net tighter. The climactic question was frequently of the "do-you-still-beat-your-wife" variety with a yes-or-no answer demanded.

It was at this point that some witnesses protested that the questioning was "unfair." Thereupon, Connally would say, "Well, all you have to say is 'no', if you don't favor shipment of 'hot' oil in interstate commerce—or 'yes', if you do."

Connally was seeking an answer either opposing state conservation laws or an admission of the necessity of the federal government helping the states enforce such laws. If the witness dared to qualify his answer, Connally would back up and start from a new tack.

Mid-Continent Skyline

By LAWRENCE E. SMITH, N. P. N. Tulsa News Bureau

TULSA, Feb. 22

The Hon. Harold LeClair Ickes, Secretary of the Interior, took to the air Friday night at Austin. He addressed a joint assembly of the Texas legislature and was introduced by Gov. James V. Allred.

Copy of his remarks, if any was made — he said he was speaking from notes — is not at hand. This writer attended by radio and was pleasantly surprised at certain assertions.

The Ickes address was made at the conclusion of a day of inspecting dams and flood control projects. The three principal sub-headings under which the talk naturally arranged itself were: The PWA has done a great deal for Texas; the federal government does not want to regulate the oil business and never did—it merely has wanted to co-operate with the states; the U. S. Supreme Court must be liberalized so that Americans can move forward to better things.

On the court issue Mr. Ickes laid it all on the line. The message of Mr. Roosevelt was somewhat adroit. He was out to get speedier and cheaper justice for the poor man, though he didn't say how the appointment of more judges would reduce lawyers' fees and court costs. But Mr. Ickes came to the point at once. His idea is to get some judges who will not hamstring democracy. Mr. Ickes himself, as will be remembered, suffered a little at the hands of the courts when he was trying to "co-operate" with the states on oil and gas matters. There was quite a lot of this unilateral co-operation in 1933 and 1934, with Mr. Glavis as head co-operator.

"Congeries" of States

Oh, well, new times, new interpretations. It did seem to us that he spoke at Austin from notes only, else he would not have asserted that, unless the President's reform of the judiciary is brought about, we shall not be able to go forward as one nation but as a "congeries" of individual states. He was addressing an audience that dearly loves to go forward as an individual state. Texas hasn't gone in for federalization much.

It was an idle thought, but we couldn't help wondering whether Mr. Joe Hill, member of the Texas senate, was in the audience. Back in 1934 Mr. Hill addressed a street meeting in Kilgore and called on the governor of Texas to call out the militia, station them on the state lines and "invite Mr. Ickes to enter at his peril." Mr. Hill is still in the senate and apparently is still going forward as an individual state, for he was one of the four who voted in the senate the other day against inviting the Secretary of the Interior to address the legislature.

* * *

Kansas Governor Suggests Oil Tax

New needs of revenue and means of providing the money were suggested to the Kansas legislature by Gov. Walter A. Huxman in a special message last week. He favored a 2.5 per cent gross production tax on oil and gas, an increase in the personal income tax rate, increase in the corporation tax rate and a one per cent sales tax.

"I do not share the opinion that it (gross production tax) will lay an unnecessary burden upon the oil industry or will adversely affect it," he said. "We must remember the fact that all the oil-producing territories except Kansas have a severance tax. . . . the only thing we need to do is to keep our tax in line with that in other states and the industry will not be hurt."

* * *

Tax Measures In Other States

Proposed increases in oil taxes in Oklahoma and Texas have reached no definite stage. The Oklahoma house of the legislature, through committee, has conducted several hearings on the bill, which would raise the gross production tax to 10 per cent, double the present rate. Only independent operators appeared before the committee. No great progress has been made in Texas toward settlement of the numerous tax-raising plans, mostly directed at oil.

Gov. E. W. Marland, Oklahoma, spoke up again during the week in opposition to an increase in the production tax and added that the personal income tax rate should be lowered as to the high brackets. He showed his awareness of the way some Oklahomans have met the high tax problem in Oklahoma. Some have gone to Texas and reports are that more are about to leave.

A bill is before the Oklahoma legislature to tax natural gasoline five per cent of its value. The state administration favors this one.

* * *

Clean-up Time in E. Texas

Shortly after the federal court at Tyler imposed heavy fines and jail sentences on more than 20 oil operators and their employes in East Texas for making false affidavits to the Federal Tender Board to clear oil for interstate shipment, 17 more indictments were returned by the grand jury. Most of them have made bond to appear for trial on a date not yet set.

It was widely published in the southwest that David Donoghue was one of those indicted. The Associated Press later corrected that statement. While NATIONAL PETROLEUM NEWS did not publish that name, this writer wishes to help along with the correction. David Donoghue, Fort Worth geologist, is known throughout the industry and is highly respected by all. He is not an East Texas operator. He is receiver, or trustee, of the Trinity Refining Co., some of whose principals did get into trouble over proration. Mr. Donoghue was appointed by the federal court at Fort Worth since Trinity officers ran into the law and is merely an agent of that court.

Enforcement activities are not confined to federal forces. Three were arrested in Longview, on complaint of Texas Railroad Commission agents, on charges of forgery of manifest forms required by the commission on movements of gasoline by truck. One owned a printing shop and the agents said they had found plates from which manifests were printed.

Commission agents arrested four truckers at Greenville, caught without the papers of clearance required. They were fined and their cargos of fuel oil confiscated and given to the city of Greenville which will use it for oiling streets.

* * *

Opposition Appears

Such vigorous opposition appeared to the suggestion that proration be abolished for the Oklahoma City field that the state Corporation Commission has to study the record at length before writing an order. Prediction now is that proration will be retained for a while longer.

The principal thing the commission has to prepare an order on is the method of taking potential production gauges in this field. Several engineers favored use of a graduated scale of declines from the potentials set up when gauges were last taken.

For two months the field has not produced its allowable production and there are those who favor lifting restrictions entirely. Others believe inequities would result if those wells which are still restricted were allowed to produce to capacity.

Empire Oil Contracts For East Texas Crude

N. P. N. News Bureau

TULSA, Feb. 22.—Active solicitation for new supplies of crude oil continues and every few days changes are reported in the status of pipeline connections to production.

One of the recent important contracts is that reported from East Texas. Empire Oil & Refining Co. has made a two-year contract for crude oil gathered by the Bell General Pipe Line Co. in excess of requirements for the Solvex Refining Co., owned by Bell interests. Minimum under the contract is said to be 4000 barrels daily but actual delivery rate is expected to be higher. Delivery will be made to Cities Service tankers at Port Arthur through Texas Empire Pipe Line Co. trunk.

In Oklahoma, the Pure Oil Co. is arranging to take its own production in the Edmond field, heretofore sold to other companies. Pure is laying 14 miles of 4-inch line from the pool to Oklahoma City, where connection will be made with Oklahoma Pipe Line Co.

Takes Survey Option

TULSA, Feb. 20.—Phillips Petroleum Co. is reported to have taken a geophysical survey option on about 250,000 acres in Marion, Lamar, Covington and Jones counties, Mississippi.

Bills Limiting Size Of Trucks Persist Despite S. C. Decision

N. P. N. News Bureau

NEW YORK, Feb. 22.—Drastic proposals to limit weight and dimensions of trucks made their appearance in a number of state legislatures over the country this week, in the face of the recent decision of a federal court that such laws were unconstitutional in that they hampered the flow of interstate commerce, according to information received here.

In addition, dozens of other bills affecting the oil industry were introduced at numerous state sessions, and in others action was taken on proposals made earlier.

Minnesota Strict

Strictest of the bills to limit size of trucks is the one before the Minnesota legislature, which would limit loads of all vehicles operated more than 15 miles from a municipality to 7000 pounds. This is the same weight limit now in effect in Texas, although a bill has been introduced there raising the maximum weight to 50,000 pounds and conforming to the uniform statute.

Legislatures in South Carolina and Ohio also both have before them proposals to adopt weight and dimension limits in accordance with the uniform act. It was South Carolina's present 20,000-pound, 90-inch-width limitation that was declared unconstitutional by a three-judge federal court several weeks ago.

South Dakota's legislature, likewise is considering a bill to raise the weight limit there to 38,000 pounds.

10,000 Pounds in Pennsylvania

As these liberalizing bills were introduced, however, bills cutting down the limitations were laid on the table in other states. In Pennsylvania a legislator has a proposal to limit gross weight of trucks to 10,000 pounds, height to 150 inches, and length to 600 inches.

A proposed measure in New Mexico would prohibit operation of vehicles whose gross weight is in excess of that allowed by posted bridges in the state, and a bill flatly prohibiting trailers has found its way into Ohio's legislative mill.

New Jersey's Commissioner of Motor Vehicles would be given broad discretionary powers to make regulations including weight and dimension limitations under a bill at Trenton.

"Governor" proposals also continued to be introduced this week, with an Arkansas legislator's bill to fix automobile speed at 30 miles per hour and require governors on trucks holding them down to 20 miles an hour heading the list.

Raises Speed Limit

South Carolina and Massachusetts lawmakers also joined those groups with bills before them to limit speeds by use of governors, but a member of Georgia's assembly did an about-face from these restrictions and introduced a bill to increase the speed limit there from 40 to 55 miles per hour.

Bills levying taxes on various phases of the petroleum industry and users of its products continue to take up a good share of legislators' time and their states' printing appropriations.

South Dakota's legislature having killed a bill reducing the "gas" tax to 3 cents, has before it now a measure to increase the tax to 5 cents; an Idaho member proposes to increase the gas tax there by 1 cent; in Ohio a bill has been introduced permitting city taxes on gasoline and vehicles for flood relief, and in Texas a legislator proposes to levy a special gas tax to care for the needy blind.

There is a bill in the North Dakota legislature to increase the state's "gas" tax to 4 cents, and would amend the definition of gasoline to include all motor fuel. A bill to tax Diesel fuel oil at 10 cents per gallon is pending before New Mexico's lawmakers, and California has two bills for taxing Diesel propelled vehicles.

Diversion Proposed

Among the proposals to use gasoline tax funds for purposes other than roads is that before the Washington legislature to add a cent to the present tax for automobile liability insurance; that of Illinois to divert a third of the gasoline tax revenue to the common school fund, and that of Tennessee to divert a portion of such revenue to workmen's compensation insurance premiums, which has passed the Tennessee House.

To balance these diversion proposals, legislatures of several other states are considering anti-diversion measures. Maryland's House has passed a constitutional amendment prohibiting diversion; Idaho's has such an amendment before it, and the North Dakota Senate has approved a bill to prohibit diversion. A similar bill has been introduced in Wisconsin, and Maryland's lawmakers are considering a bill which would repeal the 1933 act permitting transfers from the motor license fund to the state's general fund.

Township licenses for gasoline stations would be required under a bill now before the Minnesota legislature, and a bill in the Wyoming assembly would amend the present gas tax law to license manufacturers of gasoline.

Gross Production Tax Conference

Oklahoma's legislature has before it a proposal that representatives of Oklahoma meet with those of Texas, Kansas and Louisiana in an effort to fix a uniform gross production tax, and at the same time, Kansas has a bill to turn over a portion of its gross production tax to financing social security, schools, and for other purposes.

In Wyoming, a bill creating a gasoline board to conduct an investigation to see if a monopoly exists for price fixing purposes, is receiving attention of legislators, and Pennsylvania's legislature has been asked to pass a bill seeking a nation-wide Congressional investigation of alleged monopolistic control of gasoline prices.

Public Utility Bill

Texas has a bill in her legislature creating a public utility commission which would regulate, among other things, pipelines.

Dozens of other regulatory measures have been introduced in the various legislatures, including the one in Alabama, which would require all gasoline pumps to have meters, subject them to state licenses, and fix gasoline specifications; one in Indiana to create the office of state chemist to inspect gasoline and other petroleum products, and a New Jersey lawmaker's proposal to require state-tested meters for dispensing of all motor fuels, posting of prices, and displaying of bona fide trade marks on all products sold.

Bill to Regulate Gasoline Selling Introduced in New Jersey

N. P. N. News Bureau

TRENTON, Feb. 22.—Selling of gasoline by service station dealers in New Jersey will be thoroughly regulated if Assembly bill 178 is approved by the state legislature.

The purpose of the bill, it states, is "to protect the public in the purchase of motor fuels against unscrupulous gasoline dealers, and to eliminate ruinous price wars and protect the general public against unfair discrimination in selling to a favorite few at a lower price at the expense of the public at large, and to prevent substitution and fraud in order to insure the purchaser in obtaining the brand and quality of product advertised and purchased, as well as to insure the payment of taxes on the stipulated sales price."

These results can be realized, it apparently is thought, if the requirements of the bill are carried out.

Dealers Licensed

The dealer would first be required to obtain a state license which would cost him $2 yearly. Each dealer would have to display and maintain on each pump a sign stating the price per gallon of all fuel sold, which would include all taxes imposed.

The price when posted would have to remain in effect for at least 24 hours and the dealer would be required to sell at only the posted price, giving no rebates, allowances or concessions.

The bill also would require that all above-ground equipment for storing or dispensing gasoline or other petroleum products should bear the name or trademark of the branded product. No retailer or retail dealer would be permitted to allow delivery into this equipment of any petroleum product other than the brand represented on the equipment.

The bill states that "where a written contract already exists and has been entered into by any establishment licensed under this act, or which may hereafter be entered into, granting discounts to a legitimate commercial account, the terms of such contract shall apply against the posted price herein provided for and a signed copy of such contract shall be filed in the office of the State Tax Commissioner, and the commissioner will issue a permit to the parties in such contract authorizing sales at the terms specified in said contract."

High Spots of Next Week's Meetings

Coming Meetings

General Expositions

The Greater Texas and Pan American Exposition, Dallas, June 12 to Oct. 31.

The Great Lakes Exposition, Lake Front, Cleveland, Ohio, May 20 to Sept. 6.

Oil Meetings

American Society for Testing Materials, 1937 Regional Meeting, Lubricant Symposium, and Committee Week, Palmer House, Chicago, Ill., March 1 to 5.

Midwest Conference of Agriculture, Industry and Science, Omaha, Nebr., March 9 and 10.

Indiana Independent Petroleum Association, Hotel Severin, Indianapolis, Ind., March 10 and 11.

National Aeronautic Meeting, sponsored by Society of Automotive Engineers, The Mayflower, Washington, D. C., March 11 and 12.

Interstate Oil Compact Commission Meeting, Oklahoma City, Okla., March 12.

National Oil Burner and Air Conditioning Exposition, Commercial Museum, Convention Hall, Philadelphia, Pa., March 15 to 19.

American Association of Petroleum Geologists, Biltmore Hotel, Los Angeles, Calif., March 17, 18, 19.

Kentucky Petroleum Marketers Assn., Brown Hotel, Louisville, Ky., Mar. 22, 23, 24.

Oil Trades Association of New York, New York, The Waldorf-Astoria, March 23.

American Petroleum Institute, Division of Production, Southwestern District, spring meeting, Baker Hotel, Dallas, Tex., Apr. 1 and 2.

Oil Men's Association of New England, 13th annual convention, Copley Plaza Hotel, Boston, Mass., April 7 and 8.

American Institute of Mining & Metallurgical Engineers, Open Hearth Conference, Birmingham, Ala., April 7 to 9.

Petroleum Industry Electrical Association, Shreveport, La., April 8 to 10.

American Petroleum Institute, Division of Production, Pacific Coast District, Biltmore Hotel, Los Angeles, Calif., April 13.

National Petroleum Association, 34th semi-annual meeting, Cleveland Hotel, Cleveland, Ohio, April 15 and 16.

Oil Equipment & Engineering Exposition, Houston, Texas, April 19 to 24.

Western Petroleum Refiners Association, Silver Anniversary Convention, Arlington Hotel, Hot Springs, Ark., April 26, 27 and 28.

American Petroleum Institute, Division of Production, Eastern District, Deshler-Wallick Hotel, Columbus, Ohio, May 6 and 7.

American Gas Association, Natural Gas Dept., Kansas City, Mo., week of May 10.

Natural Gasoline Association of America, Hotel Tulsa, Tulsa, Okla., May 19, 20, 21.

National Association of Purchasing Agents (Oil Company Buyers Group), annual convention, William Penn Hotel, Pittsburgh, Pa., May 23 to 27.

American Petroleum Institute, Mid-Year Meeting, Broadmoor Hotel, Colorado Springs, Colo., June 1, 2, 3.

Pennsylvania Grade Crude Oil Association, annual meeting, on Great Lakes S. S. "Seeandbee," sailing from Buffalo, N. Y., June 10, 11 and 12.

Second World Petroleum Congress, during International Exposition, Paris, France, July 14 to 19.

National Oil Scouts Assn., Dallas, Tex., June 25 and 26.

American Society for Testing Materials, 10th annual meeting, and 4th exhibit of testing apparatus, The Waldorf-Astoria, New York City, June 28 to July 2.

American Gas Association, Cleveland, Ohio, week of Sept. 27.

American Society for Testing Materials, Regional Meeting, Palmer House, Chicago, March 1 to 5. Symposium on Lubricants, March 3.

March 3, Morning:

"Engine Deposits—Causes and Effects," by Dr. W. A. Gruse, Mellon Institute of Industrial Research.

"Automotive Bearings—Effect of Design and Composition on Lubrication," by A. J. Underwood, General Motors Corp., Research Laboratories Section.

Afternoon Session:

"Addition Agents for Lubricating Oils," by Dr. G. M. Maverick, Standard Oil Co. of New Jersey.

"How to Select a Motor Oil from the Standpoint of the Consumer," by Dr. W. S. James, chief engineer, Studebaker Corp.

Index to Advertisers

This index is published as a convenience to the reader. Every care is taken to make it accurate, but National Petroleum News assumes no responsibility for errors or omissions

Acheson Colloids Corp. 77
Aluminum Co. of America ... 60
American Flange & Mfg. Co. 81
Anderson-Prichard Oil Corp. 55

Bakelite Corp. 83
Battenfeld Oil Co., C. F. ... 82
Berry Sons' Co., James B. ... 85

Cincinnati Ball Crank Co. ... 79
Classified Advertisements ... 44
Conewango Refg. Co. 66

Deep Rock Oil Corp. ..... Fourth Cover

Electric Hose & Rubber Co. 72-73
Esso, Inc. 70

Fairbanks-Morse & Co. 4
Ford Motor Co. 57
Four Wheel Drive Auto Co. .. 46
Freedom Oil Works Co. 71

General Electric Co. 2
Globe Oil & Refg. Co. 65
Goodrich Electric Co. 59
Goodrich Rubber Co., B. F. .. 3
Goodyear Tire & Rubber Co. . 49

Hays Mfg. Co. 85

Johnston & Jennings Co. 67

Kellogg Co., M. W. 86
Kidde & Co., Inc., Walter 76

Leach Co., C. H. 99

Morrison Bros. 85

National Petroleum News .. 58-70

Ohio Oil Co. 32

Penola, Inc. 53
Phillips Petroleum Co. 75
Pittsburgh-Des Moines Steel Co. 5
Pittsburgh Equitable Meter Co. 1

Shand & Jurs Co. 58
Sharples Specialty Co. 93
Southwest Pump Co. 45

Thiokol Corp. 63
Tokheim Oil Tank & Pump Co. ..... Third Cover

Universal Oil Products Co. .. 89

Viking Pump Co. 100

Wayne Pump Co. 6-7
White Motor Co. 51
Wiloil Corp. 82
Wilson & Bennett Mfg. Co. ..... Second Cover

Yale & Towne Mfg. Co. 69

Contents

NEWS

See Threat of Oil Control In Supreme Court Move 9
Ethyl Anti-trust Suit a Result of Madison Inquiry 9
Blockade Docks in Los Angeles 11
Oil Union Drive Planned to Begin in S. Texas .. 11
Jobbers Ask Congress Not to Extend Connally Law 12
Former President of Wadhams Dies 13
Editorials 14
Putting the Supreme Court Argument In Simple Terms 15
Ellick Botts Writes a Letter 16
Texas Proration Law Is Extended Without Change 17
Companies Asked to Explain Higher Texas Retail Price 17
Code Rescission Opposed by Cal. Oil Executives 18
Confer With FTC On New Oil Code 18
Lubricants and Corrosion Tests A.S.T.M. Subjects 19
Gasoline Stocks to Be Lower Is Bureau of Mines Forecast 19
Bills Limiting Size of Trucks Persist Despite S. C. Decision 23
Bill to Regulate Gasoline Selling Introduced In New Jersey 23
Text of Petition to Enjoin Ethyl Gasoline Corp. Under the Federal Anti-trust Law 25
ICC Petitioned for Revision of Gasoline Weight 27
Oil Compact and Connally Law Aided Industry's Improvement ... 28
Earnings Reach Six-Year High—Union Adds Refining Capacity 28

MARKETS

Mid-Continent 29
Chicago 30
Pennsylvania 30
Eastern 30
California 34
Fuel Oil 34
Coastal 40
Wax 40
Refinery Tank Car Markets 31, 33, 35
Tank Wagon, Service Station Markets 36, 37, 38
Seaboard Markets ... 39, 40
Crude Oil Markets 41, 42

MERCHANDISING

Developments in Petroleum Marketing *by Sidney A. Swensrud* .. 47
The Future of Free Enterprise in the Petroleum Industry *by Hon. Samuel A. Pettengill* 68

TECHNICAL

Shall the Refining Industry Add a "Volatility Index"? 87
Three Phases in Which Lubricants May Operate *by A. W. Burwell and J. A. Camelford* 90
55% of Estimated Final Recovery Achieved by Oklahoma City Field .. 95
Methods for Handling Increasing Salt Content of E. Texas Crudes 96
1936 World Consumption of Oil Products *by V. R. Garfias and E. V. Whetsel* 97

DEPARTMENTS

The Midwest Marketer .. 20
Washington From the Crown Block 21
Mid-Continent Skyline .. 22
New Equipment 84
New Refining Patents .. 99

Text of Petition To Enjoin Ethyl Gasoline Corp. Under the Federal Antitrust Law

(Filed Feb. 19 in [U. S. District Court for Southern District of New York)

U. S. of America, Petitioner,
v.
Ethyl Gasoline Corp.
Earle C. Webb, and
John Coard Taylor, Defendants.
EQUITY NO.

PETITION

To the Honorable the Judges of the District Court of the U. S. for the Southern District of New York, in Equity:

The U. S. of America, by its attorneys, brings this suit in equity against Ethyl Gasoline Corp., Earle C. Webb, and John Coard Taylor, defendants, and alleges:

1. Defendant Ethyl Gasoline Corp. is a corporation organized and existing under and by virtue of the laws of the State of Delaware, and having its principal place of business at 135 East 42nd St., in the City and State of New York. One-half of its capital stock is owned by the Standard Oil Co. (New Jersey), and the remainder is owned by General Motors Corp. and E. I. du Pont de Nemours Co. Defendants, Earle C. Webb and John Coard Taylor, are president and vice-president in charge of sales, respectively, of Ethyl Gasoline Corp. Defendant Webb is a citizen of the State of Connecticut and resides in the city of Greenwich in that State. Defendant Taylor is a citizen of the State of New Jersey and resides in the City of Montclair in that State.

2. The purpose of this suit is to enjoin and restrain defendants, and each of them, from further violations of the Act of Congress of July 2, 1890, known as the Sherman Antitrust Act.

3. The unlawful combination, conspiracy, and monopoly hereinafter described has operated, and has been carried on in part within the Southern District of New York, and many unlawful acts pursuant thereto have been performed by defendants and others in said district. The interstate commerce in gasoline hereinafter described is carried on in part within said district.

Operations Described

4. Defendant corporation has been for a number of years continuously engaged in the production and sale of a substance (hereinafter referred to as "ethyl fluid") for use in increasing the octane, or anti-knock, rating of motor fuel, principally gasoline. Said ethyl fluid consists principally of tetraethyl lead, which said substance has the effect, when a relatively minute quantity thereof is mixed with gasoline, of reducing or preventing the "knocking" which sometimes takes place in the course of the combustion of ordinary gasoline in automobile motors of high compression. Defendant corporation is the sole producer of ethyl fluid in the U. S., being or claiming to be the owner of exclusive rights under certain letters patent of the U. S. purporting to cover the manufacture, use and sale of said ethyl fluid. No other substance of like character is manufactured or sold. The use of improved refining processes, such as so-called "cracking" processes, to raise the octane rating of gasoline sufficiently to meet prevailing competitive standards involves the acquisition of expensive patented apparatus and is so costly that said processes are not practically competitive with the use of ethyl fluid.

5. Defendants do not manufacture, refine or sell any gasoline, or mix ethyl fluid with gasoline, and do not own any part of, or interest in, any of the gasoline which is treated with ethyl fluid.

% Treated With Ethyl

6. More than 85% of all gasoline sold in the U. S. which is processed so as to obtain a high octane rating is treated with ethyl fluid. Approximately 70% of all gasoline manufactured and sold in the U. S. is treated with ethyl fluid. By reason of these facts, and by reason of the control exercised by defendant corporation over the manufacture and sale of ethyl fluid, said defendant possesses the power, unless the activities hereinafter described are restrained, in effect, to control and regulate the price and the manner of sale of the greater part of all gasoline sold throughout the U. S.

7. Gasoline is manufactured from crude petroleum at refineries located in various states of the U. S., principally the States of Texas, Oklahoma, California, Illinois, Indiana, Missouri, New Jersey, Pennsylvania and New York. The greater part of all gasoline manufactured at such refineries, and the greater part of all gasoline treated with ethyl fluid, as aforesaid, is sold and transported in interstate commerce from the States in which such refineries are located into each of the other States of the U. S., including the State of New York and the Southern District thereof, wherein such gasoline is sold for consumption. Said gasoline is sold by the refining companies in part through wholesale and retail outlets owned or controlled by them, and in part to so-called jobbers for resale to retail dealers and consumers.

12,000 Jobbers In U. S.

8. Jobbers usually own and operate bulk storage plants conveniently located so as to serve such gasoline, by their tank trucks or tank wagons, to retail service stations, either owned or operated by them, or independently owned or operated by retail dealers, in the various marketing territories served by them. There are approximately 12,000 jobbers of gasoline doing business in the several States of the U. S., who distribute a great part of all gasoline sold and distributed in the U. S. The greater part of all gasoline, and of the gasoline treated with ethyl fluid, as aforesaid, purchased by said jobbers is purchased by them in tank car quantities, and is delivered to them from the States in which said gasoline is refined to the States in which said jobbers are engaged in business, and a large part of such gasoline sold by jobbers is sold and distributed by them in interstate commerce from the States in which their said bulk storage plants are located to service stations located in other States.

9. Defendants, each well knowing all the matters of fact hereinbefore alleged, have been engaged in an unlawful combination, conspiracy, monopoly, and attempt to monopolize, in violation of the Sherman Antitrust Act, whereby said defendants have adopted and put into effect certain licensing policies and practices hereinafter referred to, and have attempted to control and regulate, have in fact controlled and regulated, and have unlawfully restrained, the manner of sale and the prices of the greater part of all gasoline sold in interstate commerce in the U. S. Defendants have, as part of said unlawful activities and the purposes and objectives thereof, conspired and combined with numerous refiners of gasoline throughout the U. S. as hereinafter more fully alleged. Said violations of law are more fully described as follows:

Agreements With Refiners

10. Defendant corporation, acting with and through its officers named as defendants herein and others of its officers and employes, has entered into numerous agreements with refiners of gasoline pursuant to which ethyl fluid is sold outright by defendant corporation to said refiners from time to time, and said refiners are licensed to use said ethyl fluid and to sell the same when mixed with gasoline. Said license agreements purport to authorize said refiners to treat the gasoline manufactured by them with sufficient ethyl fluid (not exceeding 3 cubic centimeters per gallon of gasoline) to produce a grade of gasoline having an octane rating of not less than 76 (such gasoline being known as premium or "Ethyl" grade of gasoline), or a grade of gasoline having an octane rating not in excess of 70 (such gasoline being known as regular gasoline and sometimes referred to by defendants as "Q" gasoline). Said license agreements impose restrictions upon the refiner licensees with respect to the prices at which the premium or Ethyl grade of gasoline may be sold by them to jobbers, dealers and consumers. Said license agreements impose the further restriction as to regular gasoline that said regular gasoline shall be sold by the refiner as the next highest priced motor fuel below the refiner's Ethyl gasoline, and shall be the refiner's best non-premium gasoline.

11. An average of approximately .85 cubic centimeters of ethyl fluid per gallon, or one part of ethyl fluid to 4400 parts of gasoline, is required to produce regular gasoline. Usually the quantity of ethyl fluid required to produce premium gasoline is approximately 2.25 cubic centimeters per gallon of gasoline, or one part of ethyl fluid to 1700 parts of gasoline. Nearly all (more than 96%) of the gasoline treated with ethyl fluid is regular gasoline.

123 Refiner Licensees

12. The names of refiners who have entered into said license agreements are too numerous to set out herein, there being approximately 123 such refiner licensees, who together refine, sell and control more than 85% of all gasoline sold in the U. S. Copies of typical forms of such refiner license agreements employed by defendant corporation are attached hereto and marked Exhibits A, B, and C, respectively. All except one of the major (i. e. large, integrated) refiners of gasoline in the U. S. have entered into such license agree-

ments with defendant corporation, and all except one of said major company licensees treat with ethyl fluid their regular or so-called house brands of gasoline, which constitute more than 90% of all gasoline manufactured and sold by each of said major company licensees.

13. Each of said refiner license agreements contains the express provision, and defendant corporation and each of the refiner licensees have agreed with each other, that the latter will sell gasoline treated with ethyl fluid only to those jobbers who shall have been licensed by defendant corporation, acting with and through its officers named as defendants herein, and others of its officers and employes, under two forms of licenses, one purporting to license the handling of premium or Ethyl and the other of regular gasoline. Copies of each of said forms of licenses are attached hereto and marked Exhibits D and E, respectively. Jobbers desiring to apply for such licenses are required to apply through their respective refiner suppliers, who, in turn, submit such jobber applications to defendants. Very often the same jobbers have been licensed under both forms of licenses. Approximately 10,000 jobbers have been granted such licenses by defendants. Numerous applications for jobber licenses have been denied. Apart from the issuance of such licenses to said jobbers (through their respective refiner suppliers, as aforesaid) and the investigation thereof hereinafter described, defendant corporation does not have any business relations with any of said jobbers.

Jobber Licenses

14. Said jobber licenses purport to be aimed at the protection of health and the maintenance of quality of gasoline treated with ethyl fluid. The addition of ethyl fluid to gasoline, however, does not cause or produce any dangers or hazards to health, the Ethyl and regular gasoline being in no respect more dangerous to health than ordinary untreated gasoline. No authentic cases of lead poisoning, or other injury to health from such lead treated gasoline, have ever been discovered. Also, defendants have not employed or required the use of any trade name or trademark in connection with regular gasoline, and have established no trade reputation in connection with such gasoline. No minimum octane requirement is specified by the defendants with respect to such gasoline and the maintenance of quality thereof is not, actually or in practice, a factor in defendants' licensing policy.

15. Defendants have employed said jobber licenses, and their power to grant or withhold the same, so as to require and compel jobbers purchasing outright any gasoline treated with ethyl fluid to maintain so-called "business ethics," a term employed by defendants to denote compliance with approved marketing policies of the major oil companies, or the market leaders among such major oil companies, and particularly the maintenance by jobbers, and retail dealers who in turn purchase such gasoline outright from jobbers, of the retail prices for gasoline posted by said major oil companies or market leaders. Defendants have refused to grant licenses to a large number of jobbers who do not abide by said approved marketing policies or do not maintain said major oil company prices, and they have required and compelled jobber licensees, under threat, or apparent threat of revocation of said licenses or refusal to renew said licenses, to maintain, and to see to it that their retail dealer outlets maintain, said approved marketing methods and practices and prices of said major oil companies or market leaders. Each jobber license contains a provision whereby defendant corporation is authorized to cancel said license, without stating any reasons therefor, at any time upon thirty days' notice.

Investigators Used

16. In order to effectuate said policies, and said control and restrictions upon jobbers and their retail dealers, defendants have organized and maintained an extensive system of investigation of the practices and prices maintained by jobbers in their retail outlets or those maintained by the retail dealers to whom they sell. Ostensibly such investigations, whether of jobber licensees or of applicants for jobber licenses, have been made for the purpose of protecting the quality of gasoline treated with ethyl fluid or of discovering possible health hazards in the sale of such gasoline, but in fact the primary purpose of said investigations, and the only substantial purpose thereof, has been as aforesaid, to effectuate the unlawful control of and restrictions upon, said jobbers and their retail dealers above described. By reason thereof, regular investigators, or field representatives, in the employ of defendant corporation have been instructed not to report their findings in writing, and the purposes and results of said investigations have been concealed. Usually no records have been made or preserved disclosing the aforesaid true reasons, or any reasons, why licenses to jobbers have been refused. Said investigators or field representatives are many in number, are located throughout the U. S., and exercise wide discretion and authority in determining the granting or refusal of jobber licenses; usually the mere decision of the field investigator as to the applicant's "business ethics," without supporting data, has determined whether a license would be granted.

Maintains Prices

17. Refiners generally, as well as jobbers, know and understand that jobber licensees, and their dealers, are required to maintain prices as aforesaid and to abide by the marketing practices and methods of the major oil companies as aforesaid, and jobber licensees generally have accordingly conformed to these requirements.

18. As part of said unlawful policies, defendants have from time to time required that each jobber licensee contract to purchase all his requirements of gasoline from one refiner supplier. Similarly, defendants have employed the power inherent in said jobber licensing system to enforce supply contracts of jobbers with refiners, and they have refused to license jobbers who desired to change their sources of supply, upon the ground that said jobbers were under contract to purchase from their existing refiner suppliers, even where said jobbers have contended that such contracts had been abrogated, or for other reasons were not enforceable against them.

19. Defendants' policies and practices with respect to jobbers have abused, and gone beyond the scope of, any patent rights defendants may own or control, and have constituted an unlawful exercise of future control over what purchasers may wish to do with gasoline which they have purchased outright for full consideration. Acting in concert, and in combination with said refiner licensees, as aforesaid, defendants have employed said jobber licenses almost exclusively for the purpose, and with the effect, of controlling and regulating the marketing of gasoline throughout the U. S., and they have attempted to control, and have in fact, controlled and regulated the marketing policies of, and prices charged for gasoline at retail by, jobbers and their dealers. The aforementioned restrictions upon refiner licensees, and particularly those limiting and selecting the jobbers to whom said refiners may sell gasoline treated with ethyl fluid, have not been normally and reasonably adapted to secure pecuniary reward to which defendants may be justly entitled by reason of any patent rights. Defendants have thereby substantially monopolized and restrained trade among refiners, jobbers and dealers in the sale of gasoline in interstate commerce as aforesaid, all in violation of the Act of Congress of July 2, 1890.

20. Defendants are now engaged in said unlawful acts and practices and threaten to and will continue to engage in said unlawful acts and practices unless enjoined by this court.

Petitioner's Prayer

Wherefore petitioner prays:

1. That writs of subpoena issue directed to each of said defendants, commanding them to appear herein and answer the allegations contained in this petition, and to abide by and perform such decrees as the Court may make in the premises;

2. That the monopoly, combination and conspiracy described herein be declared illegal and in violation of the Sherman Antitrust Act;

3. That defendants and each of them, and each and all of their respective officers, agents and employes, and all persons acting or claiming to act on behalf of them, or any of them, be perpetually enjoined from continuing the unlawful practices hereinabove described and, particularly, from requiring jobbers to procure licenses for handling gasoline treated with ethyl fluid; and from agreeing with refiners, carrying out existing agreements, or otherwise requiring, that the latter shall sell gasoline treated with ethyl fluid to such jobbers only as defendants shall license or otherwise designate; and from in any other way, directly or indirectly, continuing to engage in the aforesaid monopoly, combination and conspiracy, or any other monopoly, combination and conspiracy of like character or effect;

4. That petitioner have such other and further relief as the case may require and the Court may deem proper in the premises;

5. That petitioner recover its costs.

Ohio Gasoline Consumption Up

COLUMBUS, Feb. 22.—Consumption of gasoline in Ohio in December, 1936, increased 22 per cent over consumption in same month the previous year, according to a report of the Ohio Petroleum Marketers Assn. Consumption was 93,426,515 gallons, an increase of 16,816,256 gallons or 21.95 per cent over December, 1935.

Total consumption for the year 1936 was 1,133,834,593 gallons, an all time high. It represents an increase of 118,909,274 gallons or 11.7 per cent over consumption in 1935.

LINCOLN, Neb., Feb. 22.—Sidney E. Smith, of L. L. Coryell & Son, has returned from a vacation in California.

ICC Petitioned For Revision Of Gasoline Weight

By L. D. McGUAN

PEORIA, Ill., Feb. 22.—Unfair and preposterous taxes in the oil industry was the theme of the address of President Paul D. Sweney, Sweney Gasoline and Oil Co., opening what he later termed the most successful convention of the Illinois Petroleum Marketers Ass'n. in Peoria, Feb. 17 and 18. The taxation theme predominated throughout the two-day meeting.

"Increases of various governmental activities involving not only our industry but the whole business world constantly challenges the attention of our association," Mr. Sweney declared.

"Unless you are prepared to fight this paradoxical situation I predict far more political wastefulness than we have yet seen. Proper legislation is the cure, but you are the doctors," he said.

In a closed meeting preceding the formal opening of the convention, Illinois jobbers ratified five resolutions. Four are directed at federal and state taxes, the fifth against any allowed increase in freight rates by the Interstate Commerce Commission, and directing attention of the commission to the present unjust application of weight "measure now used which is resulting in an overcharge of $11.50 to $22.27 per 8000 gallon tank car of petroleum products."

Protest 6.6 Lb. Weight

This overcharge was to be brought to the attention of the Interstate Commerce Commission as a result of the railroads proposal to increase freight rates. The resolution calls attention to the obsolete use of the Baume gravity scale by railroads in place of the A. P. I. method adopted by the oil industry and the more accurate determinations of weight by the latter method which are lower than by the older method.

Members of the association therefore resolved to make a protest to the I. C. C. of the existing overcharge as reported in NATIONAL PETROLEUM NEWS last week.

Following the address of Mr. Sweney, Harry Curran Wilbur, Chicago, spoke on "Masked Forces in Consumer Co-operatives." Ralph G. Harder, Public Relations Department of Shell Petroleum Corp. talked on "Customer Consciousness," followed by a open discussion of jobbers from the floor. The Hon. John D. Black, of the law firm of Winston, Strawn and Shaw, Chicago, who was to have addressed jobbers on "Two Federal Laws," the Robinson-Patman law, and Social Security act was unable to appear on account of illness.

The address of Mr. Wilbur, managers consultant, at times rising to a shout, then dropping to a whisper, brought sporadic applause from the assembled jobbers as he ripped into the consumer co-operative movement.

He warned of the subversive element undermining the consumer, co-operative movement stating "inextricably interknit with the economic action is a cultural and political program that, if unchecked, will change our whole economic structure and ultimately that of our government itself."

Mr. Wilbur outlined some of the "sinister forces that, through their allies and through their dupes are sapping the foundatons of the republic as they drive forward to substitute for it the collectivist state thinly disguised at times by such labels as "planned economy" "co-operative commonwealth."

Caustically referring to the European junket of the federal commission appointed to study the consumer co-operative movement, his question. "Why ape the countries of Europe in free America," brought spontaneous applause from the floor.

Protect Customers

It is the job of the marketer to point out to his customers the effects of tax diversion, R. G. Harder told Illinois jobbers.

"The gasoline tax is a special tax levied for a special purpose," he said. "It is our part of that responsibility to assist our customers in seeing that this money is used solely and economically for the purposes intended. Diversion affects your customers, for they have not received the promised value for their investment. To the farmer-customer it has meant postponement of building greatly needed secondary highways.

"Your customers constitute a source of latent power, which will help you as you help them. The business man must tell his public his business story."

John Bunce, director of the Wisconsin Retail Dealers and Service Ass'n. in his speach "Dealer Organization," said he believed that the Robinson-Patman act would do a great deal to cure two of the worst evils of oil marketing—national discounts, and secret rebates.

Approves R-P Law

Mr. Bunce outlined benefits of dealer organization. He also spoke on leasing, licensing and contract troubles of gasoline and oil dealers.

Willard Waugh, Peoria dealer, told of the improvement in the Peoria retail price situation. He credited closer association of dealers in the area. He said that while cut price dealers still operate, prices are more nearly in line with those of recognized brands.

H. Bond Heddin, Ethyl Gasoline Corp., talked on the "Gasoline Sales Possibilities to the Farm Market." He cited that farmers use nearly 25 per cent of the country's entire gasoline output. He also pointed out that several tractor manufacturers are now making tractor engines powered by high compression gasoline. This type engine, he said, reduces the farmer's cost per acre by creating greater power.

The five formal resolutions adopted by the convention are to be forwarded in copy to proper authorities. Briefly, they are:

RESOLUTIONS

1—Requests "the Illinois General Assembly to devise plans to definitely and permanently stop the diversion of automobile taxes and to direct those funds to the purposes for which they were pledged and intended or to reduce such taxes in conformity with such requirements as are necessary for road construction and maintenance only."

2—Petitions "the two U. S. Senators and all the congressmen from Illinois to use their best efforts, influence and votes to repeal the federal taxes on gasoline and lubricating oil."

3—Unalterably opposes the enactment of H. R. 3134 by Representative Boland, Pennsylvania, introduced in the House of Representatives Jan. 18, 1937, which would place a federal tax of 1 cent per gallon on fuel oils.

4—Recommends "that immediate steps be taken to consolidate the functions of the Oil Inspection Bureau and the Motor Fuel Tax Division under one agency of the Department of Finance of the state of Illinois."

5—The resolution referring to freight rates was the subject of considerable discussion from the convention floor and reads in full:

"Whereas, the American railroads have proposed to the Interstate Commerce Commission that they be allowed to increase freight rates, which increase is in our estimation unjustifiable and would place a decided handicap upon the operations of dealers of petroleum products in Illinois, and

"Whereas, there has been in existence for years a method of computing poundage weights on gasoline, known as the 'Baume Gravity Scale,' and

"Whereas, modern processes of refining have resulted in the adoption of a new method of computing poundage weights, known as the 'A. P. I. and Specific Gravity Scale,' which has been found to be a more proper method of determining poundage weights, and

"Whereas, the application of the new A. P. I. method has changed materially computations on the weight of gasoline as compared with the old and obsolete Baume Scale basis, resulting in differences of from 3200 lbs. to 6200 lbs. per 8000 gallon tank car, and

"Whereas, the unjust application of the method now used is resulting in an overcharge of from $11.57 to $22.27 per 8000 gallon tank car . . . .

"Now, Therefore Be It Resolved, by the members of this Association in convention assembled, that the honorable members of the Interstate Commerce Commission in Washington, D. C. are hereby presented with a formal protest against any proposed increase in railroad freight rates, and are hereby requested to give sincere consideration to our complaint and by the authority vested in them, to authorize an adjustment of the estimated poundage weights of gasoline as above outlined to eliminate the overcharge now existing."

All officers and directors whose terms expired this year, were re-elected, with the exception of H. G. Beach, Illinois Independent Oil Co., Lincoln, who declined re-nomination.

Paul D. Sweney is president. Wallace Wright, Crescent Gasoline Co., East St. Louis, vice-president. G. A. Primm, Springfield, executive secretary.

George Lofgren, Lofgren-Erickson Oil Co., Galesburg, succeeds H. G. Beach. Other re-elected directors are: C. O. Beroth, Acme Petroleum Co., Chicago; C. P. Poland, Poland Oil Co., St. Louis; C. S. Rosenthal, Apex Motor Fuel Co., Chicago; and Elzie Huot, Baron-Huot Oil Co., Kankakee.

Safety Meeting Planned

NEW YORK, Feb. 22.—Every phase of accident prevention work will be covered at the eighth annual convention of the Greater New York Safety Council in a program of approximately 40 sessions at the Astor Hotel on April 13, 14, and 15. Attendance of 7000 is expected.

On the second day the petroleum division will have its session followed by a petroleum luncheon. No speakers nor subjects have been announced yet but these details have been promised for a later date. Other sessions will be devoted to street and highway safety, reaching the worker and foreman, occupational diseases, fire prevention, first aid, commercial vehicle, and others.

Oil Compact and Connally Law Aided Industry's Improvement

PHILADELPHIA, Feb. 22.—Praising the workings of the interstate oil compact and the Connally hot oil law as definite factors in improving the oil industry's situation, J. Howard Pew, president, told Sun Oil Co. stockholders, in his annual report their company shared in the general improvement in business in 1936.

Sun's net income last year was $7,563,554, after all charges, equal, after preferred dividend requirements, to $3.44 a share on 2,023,119 common shares outstanding on Dec. 15, 1936, prior to distribution of the 6 per cent stock dividend on that date. In 1935, the company earned $7,100,238 or $3.45 a share on 1,886,594 shares then outstanding.

"In the department of petroleum production," Mr. Pew said, "the industry's situation has been much improved through the workings of the interstate oil compact and the Connally hot oil law. These measures combined with the increased demand have resulted in some reduction in the amount of oil stored above ground in the last year. It is probable that these desirable regulatory measures will continue as permanent policies."

Mr. Pew believes the establishment of the American Petroleum Institute committee to keep records from year to year, as accurately as possible, indicating how production compares with the potential of new discoveries and developments will be of considerable help to the industry. State conservation authorities should find the data thus obtained increasingly valuable as a guide to allocations, Mr. Pew said.

Approximately $11,000,000 was spent out of current receipts for capital improvements. Of this amount, $5,700,000 went into production, $1,100,000 into a new tank steamer, $2,600,000 into refineries, $1,200,000 into marketing and the remaining $400,000 into other improvements.

Deplores Iowa Plan

Mr. Pew deplored the spread of punitive legislation which had forced Sun and other oil companies to retire from retailing their products in part through their own filling stations. "We believe the company-owned stations were influential in keeping the standards of this service high, and so were a real advantage to the motoring public," he asserted.

The company's crude reserves were increased by about 29,000,000 barrels during the year. It drilled 275 wells for itself, and participated with others in drilling 33. Of the 275 wells, 233 were oil wells, 7 were gas wells and 35 were dry holes. Total cost of these wells was $5.07 a foot.

At the beginning of 1937 the company's estimated underground reserves were slightly more than 200,000,000 barrels, as against 178,655,000 barrels a year ago.

Gross operating income (excluding inter-company sales) was $105,446,627, compared with $88,524,940 the previous year. Operating charges were reduced, however, so that net operating income was $6,298,317 in 1936 compared with $6,016,704 the previous year.

Rehearing Is Postponed

WASHINGTON, Feb. 22.—Rehearing before an Interstate Commerce Commission examiner of the Alabama rail rate case involving gasoline and kerosine from Gulf coast points to Alabama river ports, scheduled for March 8 at Mobile, has been indefinitely postponed by the ICC.

No reason was given for postponement of the rehearing, granted by ICC last month on the petition filed last June by the Pure Oil Co.

Oil Trades Election

NEW YORK, Feb. 19.—The annual meeting and election of officers of the Oil Trades Assn. of New York will be held at the Waldorf-Astoria hotel on March 23, it was announced today.

The regular nominations for officers are Joseph C. Smith, Smith Weihman Co., president; Kenneth L. Patterson, Stanco Distributors, vice-president; Albert J. Squier, Albert J. Squier Co., secretary; and Philip C. Meon, Borne Scrymser Co., treasurer. Rudolf G. Sonneborn, L. Sonneborn Sons, is the retiring president.

Earnings Reach Six-Year High Union Adds Refining Capacity

LOS ANGELES, Feb. 22.—In the black by the largest amount in six years, Union Oil Co. of California gladdened the hearts of 22,849 stockholders by showing a net profit for 1936 of $6,133,398, equivalent to $1.40 a share on 4,386,070 shares outstanding. This compares with $5,038,286 and $1.15 a share in 1935.

Commenting on the boost in earnings, R. D. Matthews, executive vice-president, pointed to a larger volume of crude oil produced and an improvement in prices for petroleum products, particularly for gasoline commencing in April, 1936, as principal contributing factors.

Optimism for the future was indicated in the body of the annual report, by reference to increased crude prices, end of the marine strike, and increased gasoline consumption.

Construction on a heavy crude and fuel oil cracking plant of 12,000 barrels daily capacity and a crude distillation unit of 15,000 barrels is about to commence, Union Oil Co. has announced. Both will be at the Oleum refinery in the San Francisco bay area. When completed, the new cracking plant will increase the through-put cracking capacity of various types to 25,000 barrels per day.

Cash dividends of $1 a share were paid in 1936, the same as for 1935. Earned surplus on Dec. 31, 1936, amounted to $12,169,182, an increase of $1,747,328 during the year. The report stated that no provision for surtax on undistributed profits was required.

Profit before deducting depletion and depreciation charges aggregated $14,935,684, or $3.41 a share, compared with $13,320,317, or $3.04 a share, in 1935. Provision for depletion and depreciation for 1936 amounted to $8,802,286, equivalent to $2.01 per share, as compared to $8,282,031, and $1.89 per share, for 1935. The increase was declared due principally to the additional amount provided for depletion and depreciation of oil lands and development occasioned by the larger quantity of crude produced during the year.

Net incoming resources, as represented by profit before depletion and depreciation charges, totaled $14,935,684 and were disposed of mainly through payments of dividends, $4,386,070; addition to properties, $8,041,248; decrease in funded indebtedness, $1,200,000 and increase of net working capital, $602,076.

Quantities sold in 1936 and 1935 were 30,369,616 barrels and 30,403,727 barrels respectively. The average realization per barrel of $2.14 is the highest since 1930 and compares with $2.01 in 1935.

During the year Union continued to actively engage in geophysical and exploratory drilling operations to augment its crude oil reserves. This resulted in the completion of 83 wells during the year with an approximate initial production of 34,000 barrels daily. Fourteen wells were actively drilling at the end of the year.

In the Santa Maria valley field, discovered by Union in 1934, developments during 1936 brought the pool into a position of major importance. The company has about 3500 acres in this area, of which 1200 are considered proven and on which 9 productive wells have been drilled to date. Additional exploration work is to be started immediately on a block of land to the southwest of Santa Maria.

Union holds oil rights on 173,805 acres of land in fee or mineral rights fee and 69,465 acres under lease contract. In addition the company has a 3.9 per cent interest in the Kettleman North Dome Ass'n; a 60 per cent interest in approximately 7000 acres of proven and unproven leasehold properties in Wyoming, operated by the Continental Oil Co.; owns in fee 19,581 acres of oil shale lands in Colorado and 391,740 acres of untested properties in Columbia, South America. It also holds concessions and a royalty interest in 140,779 acres in Venezuela which have not been tested.

At the close of the year marine equipment included 11 steamships and 20 barges, motorboats, and other small craft, with a total carrying capacity of about 790,000 barrels. At this time, it also had in operation 494 domestic and foreign bulk sales stations, 726 retail service stations, 150 portable islands and 13 airport units.

In addition, distribution of the company's products is effected through approximately 5700 independent retail stations of which 65 per cent are 100 per cent accounts. Equipment owned by the company at the year-end included 778 tank cars, 943 auto trucks and 172 automobiles.

Pipeline Planned

DALLAS, Feb. 20.—American Liberty Pipe Line Co. is surveying for a six or eight-inch line from the Sulphur Bluff field, Hopkins county, to the town of Weaver, on the Cotton Belt railway. The distance is about 10 miles.

Markets

Kerosine, Heavy Fuels In Active Demand

N. P. N. News Bureau

CLEVELAND, Feb. 22

KEROSINE and heavy fuel oils monopolized trade interests in refinery markets the third week of February. Tank car gasoline markets generally remained easy. Inventories continued to increase in virtually all refinery districts.

Lubricating oils, particularly dark and bright stocks, were in active demand from foreign buyers. Demand from abroad showed little, if any, tendency to slacken despite steadily rising prices.

Warm weather continued to curtail use of kerosine in home burners, but with spring plowing just ahead, refiners in most districts were not anxious sellers. As a matter of fact many Mid-Continent refiners said they would rather store kerosine than to sell now. They believed prices would be higher in the spring.

Kerosine was a bit easier at some points along the eastern seaboard. Many suppliers had caught up on orders and were not having to buy in the open market to cover commitments. In all other refinery districts the product was closely held.

The most favorable market factor of the week was the 0.3-cent advance in tank wagon gasoline prices in the Standard of Indiana territory. But observers who had predicted such an advance would bolster the Mid-Continent and Mid-Western tank car markets were disappointed.

Neither market showed much improvement although movement of gasoline from the Mid-Continent was slightly better. Observers generally agreed that there were too many refiners in need of orders to permit prices to work higher.

Continued failure of the Mid-Continent gasoline market to respond to the recent advance in crude prices was blamed on the high rate of refinery operations. Too many refiners apparently were running crude primarily to get fuel oil rather than gasoline. Stocks of gasoline were piling up to what many observers considered an uneconomical level.

Last week the American Petroleum Institute reported that in the seven days ended Feb. 13, stocks of gasoline at U. S. refineries increased 3,050,000 barrels to 73,585,000 barrels. This is almost seven million barrels above inventories on Feb. 13, 1936.

While some traders were fearful that stocks would become burdensome, others said that crude runs probably would be curtailed as fuel oil demand tapers off. A slight reduction in crude runs would hold gasoline stocks in line since consumption is currently estimated at about 10 per cent above last year.

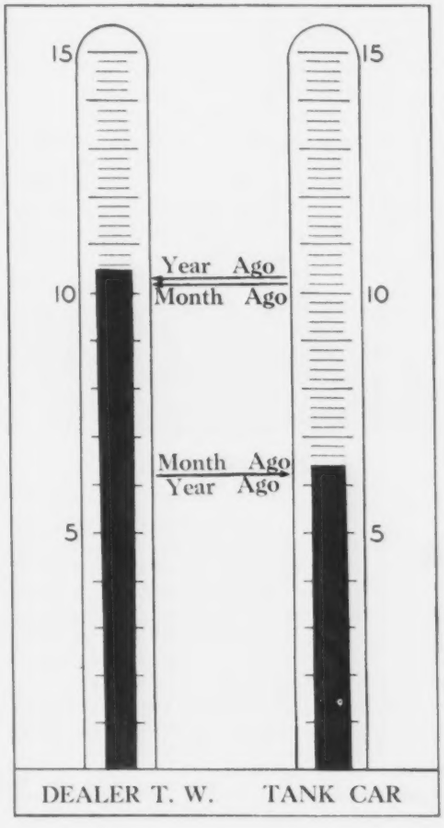
Natural gasoline rallied toward the end of last week after a short easing spell. Offerings were in larger volume early in the week but demand picked up considerably as the week progressed.

Both Mid-Continent and Pennsylvania bright stock were active. Export buyers continued to take large quantities. No price changes were noted last week, but buyers showed no reluctance to pay the higher prices reached the second week of February.

Offerings of wax were limited. Buyers were bidding higher prices.

N. P. N. Gasoline Index

(Copyright)



Dealer index is an average of "undivided" dealer prices, ex-tax, in 50 cities. Tank car index is a weighted average of 13 wholesale markets for regular-grade gasoline. The gasoline price index this week represents the following prices in cents per gallon:

	Dealer T. W.	Tank Car
Feb. 22	10.52	6.41
Month ago	10.21	6.23
Year ago	10.34	6.23

Mid-Continent

Gasoline Movement Improves

N. P. N. News Bureau

TULSA, Feb. 22

Gasoline shipments from Mid-Continent refineries increased last week when weather conditions in the north and middlewest improved and tank wagon gasoline prices advanced in the Standard of Indiana territory.

Although there has been some improvement in orders, many refiners still were in need of relief on gasoline. While shipments against contracts and open market buyers were heavier than previously, they still were far from normal, according to most reports.

East Texas refiners still maintained the enviable position of having sufficient orders to take care of their gasoline output. At one time during the week it appeared there was insufficient gasoline to supply demand. Orders for shipment to the Gulf Coast continued in good volume. A buyer sought 100 cars of straight run gasoline in East Texas at 4.625 cents and found none available. Most sales were bringing 4.75 cents f.o.b. East Texas plants.

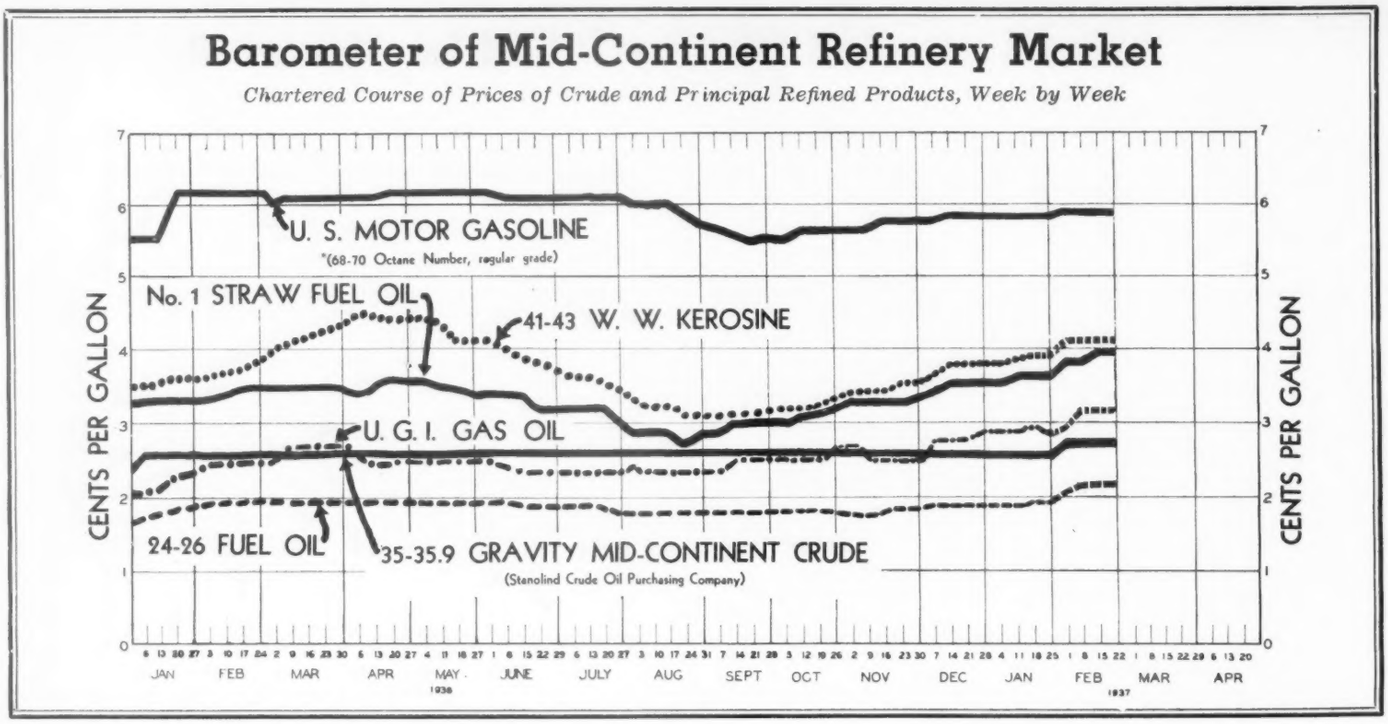
Prices for Grade 26-70 natural gasoline were steadier in Oklahoma. Three manufacturers had odd cars of this grade on hand and were finding it difficult to move. For a while it looked as though lower prices might be quoted to insure immediate movement. A buyer who had been active in Texas, however, purchased the surplus Oklahoma natural at 3.75 cents, Group 3. There was a ready market for Texas Grade 26-70. One large company was supplying shipping instructions for all available supplies. Price paid was 3.5 cents, f.o.b. Breckenridge.

Most plants in the Mid-Continent were making low vapor pressure natural, leaving only small quantities of Grade 26-70 to be sold. Some low vapor pressure grades were reported hard to dispose of at current prices.

Kerosine was closely held by most Mid-Continent refiners. Sellers were reluctant to quote current prices, since they felt sure prices would advance when spring plowing begins.

Several East Texas refiners posted 5 cents for kerosine at their docks. This brought kerosine prices for truck shipment up to the same level as gasoline.

There was nothing spectacular in the lubricating oil market. Bright stocks still


Barometer of Mid-Continent Refinery Market
Chartered Course of Prices of Crude and Principal Refined Products, Week by Week
U. S. MOTOR GASOLINE
*(68-70 Octane Number, regular grade)
No. 1 STRAW FUEL OIL
41-43 W. W. KEROSINE
U. G. I. GAS OIL
24-26 FUEL OIL
35-35.9 GRAVITY MID-CONTINENT CRUDE
(Stanolind Crude Oil Purchasing Company)
CENTS PER GALLON
CENTS PER GALLON
JAN FEB MAR APR MAY JUNE JULY AUG SEPT OCT NOV DEC JAN FEB MAR APR
1936
1937

*This was formerly 63-70 octane; changed April 15, 1936.

were getting good play from export buyers and other manufacturers. Neutral oils were less active than bright stock. Manufacturers were holding these oils to apply against orders for spring shipment.

Wax was in active demand.

Chicago

Kerosine Tight; Gasoline Slow

N. P. N. News Bureau

CHICAGO, Feb. 22

● Little improvement was apparent in the Mid-Western tank car market last week following Standard of Indiana's 0.3-cent advance Feb. 17 in dealer and consumer tank wagon gasoline prices. This was consensus of both buyers and sellers.

Some sellers reported the wholesale price advance had brought a mild buying flurry in the tank car market which, however, quickly subsided as offerings continued in excess of orders.

The reports of low-priced gasoline which had been heard prior to the announcement of the dealer tank wagon advance were not encountered Feb. 16 and 17. However, as the week progressed, occasional low-priced sales on which neither specifications nor actual price could be obtained, were again creeping into market reports.

Surprisingly, virtually all of the easiness of the gasoline market apparent last week still was on the better grades. Low octane U. S. Motor from East Texas was not offered by sellers here in quantity. Only occasional cars were handled by Chicago resellers. Offerings were often at higher prices than for similar material from other districts.

Kerosine was active. On Feb. 19, S. O. Indiana announced a 0.3-cent increase in tank wagon prices, effective Feb. 23 throughout 10 middle western states. This is the third successive 0.3-cent advance since Dec. 4.

Offerings of kerosine have been limited throughout the present heating oil season, and continued so the week ended Feb. 20. Some resellers reported there has been a gradual tightening of offerings as refiners in the southwest who had been offering in the open market were beginning to withhold production to apply on contract commitments during the coming farming season.

Pennsylvania

Lubes Continue Active

N. P. N. News Bureau

CLEVELAND, Feb. 22

● Continued active demand for both dark and bright stocks was the outstanding feature of the Pennsylvania market the third week of February. Relatively few spot sales of these oils were reported; many refiners were having to turn down inquiries because of lack of supplies.

Interest in light oils, on the other hand, generally was not up to expectations. Inventories of gasoline, particularly U. S. Motor, were burdensome in some quarters. Kerosine and fuel oil both were somewhat firmer, but furnace oil blends of the two were not moving well.

There was more talk in trade circles of a possible advance in Pennsylvania grade crude oil prices. Many traders were expecting an advance momentarily.

Refiners reported that buyers have not shown as much resistance to higher cylinder stocks prices as they had anticipated. Apparently demand was running ahead of supply and finding a source of supply was more important than price.

More domestic jobbers were coming into the bright stocks market to supplement the foreign buying. Some of them reported that suppliers were behind on shipments. Any spot offerings that found their way to market last week were readily absorbed.

Demand for neutrals was inactive; buyers held to the sidelines. Despite the lack of new buying, however, inventories were reported lower than on Jan. 1. Some traders expressed opinion that a shortage of neutral might develop when domestic buying of summer motor oil gets under way.

Some suppliers were asking slightly higher prices for wax. In a few instances sales were made at higher prices, although sales of 124-126 white scale at 2.7 cents were in the majority.

Refiners still were selling minimum 65 octane gasoline at 7 to 7.25 cents despite the advance in tank wagon prices earlier in the month. Jobbers were buying pretty much on a hand-to-mouth basis. Inventories of U. S. Motor gasoline continued to pile up. New buying was virtually at a standstill.

Kerosine and fuel oil remained firm in the Bradford-Warren district. In the lower field, however, neither kerosine nor fuel oil was moving well.

Eastern

N. Y. Gasoline Prices Lower

N. P. N. News Bureau

NEW YORK, Feb. 22

● Tank car and barge gasoline markets dropped 0.25 cent a gallon in the New York harbor market last week, while prices remained unchanged at other eastern seaboard terminals.

A number of New York harbor suppliers who had advanced tank car and

REFINERY TANK CAR MARKETS

Prices in cents per gallon, tank car lots, except where otherwise noted. Inter-refinery and export prices not included. Federal, state or municipal taxes not included. Prices quoted apply on products made from legally produced crude.

Gasoline *and* Naphtha

OKLAHOMA (Prices represent majority of quotations or sales, f.o.b. Oklahoma refineries)

	Feb. 22	Feb. 15	Feb. 8
48-54, 450 e.p. naphtha	.....	*4.50 – 4.625	*4.50 – 4.625
U. S. Motor gasoline, by octane numbers:			
62 octane and below	4.625– 5.125	4.625– 5.125	4.625– 5.125
63-67 octane	5.125– 5.50	5.00 – 5.50	5.00 – 5.50
68-70 octane (regular)	5.75 – 6.125	5.75 – 6.125	5.75 – 6.125
60-62, 400 e.p. gasoline	4.625– 5.125	4.625– 5.125	4.625– 5.125
64-66, 375 e.p. gasoline	*5.00 – 5.25	*5.00 – 5.25	*5.00 – 5.25
68-70, 350-360 e.p. gasoline	*5.00 – 5.375	*5.00 – 5.375	*5.125– 5.375

*Nominal.

WESTERN PENNA. (Prices represent majority of quotations or sales)

Bradford-Warren:			
52-54 naphtha	5.00 – 5.125	5.00 – 5.125	5.00 – 5.125
Motor gasoline:			
U.S. Motor (58-62°)	5.125– 5.25	5.125– 5.25	5.125– 5.25
Minimum 60 octane	*7.00	*7.00	*7.00
Minimum 65 octane	*7.25	*7.25	*7.25
Minimum 70 octane	.....	.....	.....
64-66, 390 e.p. gasoline	5.375– 5.50	5.375– 5.50	5.375– 5.50
68-70, 350-360 e.p. gasoline	5.625– 5.75	5.625– 5.75	5.625– 5.75
Other districts:			
52-54 naphtha	5.00 – 5.125	5.00 – 5.125	5.00 – 5.125
54-56 naphtha	5.125– 5.25	5.125– 5.25	5.125– 5.25
Motor gasoline:			
U. S. Motor (58-62°)	5.125– 5.25	5.125– 5.25	5.125– 5.25
Minimum 60 octane	6.75 – 6.875	6.75 – 6.875	6.75 – 6.875
Minimum 65 octane	7.00 – 7.125	7.00 – 7.125	7.00 – 7.125
Minimum 70 octane	.....	.....	.....
64-66, 390 e.p. gasoline	5.375– 5.50	5.375– 5.50	5.375– 5.50
68-70, 350-360 e.p. gasoline	5.625– 5.75	5.625– 5.75	5.625– 5.75

*Nominal.

CALIFORNIA (3c tax to be added to prices if used in state)

54-58 U. S. Motor, 437 e.p. for in-state shipment	7.75 – 8.75	7.75 – 8.75	7.75 – 8.75
54-58 U. S. Motor, 437 e.p. for outside state shipment	7.75 – 8.75	7.75 – 8.75	7.75 – 8.75
58-61, 375-400 e.p. gasoline, 65 octane and above	8.25 – 9.25	8.25 – 9.25	8.25 – 9.25

†NORTH TEXAS (Prices represent majority of quotations or sales, F.o.b. Wichita Falls district for shipment to Texas and New Mexico destinations; Group 3 prices quoted on northern shipments).

U. S. Motor gasoline, by octane numbers:			
62 octane and below	4.75 – 5.25	4.75 – 5.125	4.75 – 5.125
63-67 octane	5.125– 5.50	5.00 – 5.50	5.00 – 5.50
68-70 octane (regular)	5.625– 6.125	5.625– 6.125	5.375– 6.125
60-62, 400 e.p. gasoline	4.75 – 5.25	4.75 – 5.125	4.75 – 5.125
64-66, 375 e.p. gasoline	.....	4.875– 5.00	4.875– 5.00
68-70, 350-360 e.p. gasoline	.....	5.00 – 5.125	5.00 – 5.125

KANSAS (F.o.b. refinery, Kansas destination)

U. S. Motor gasoline, by octane numbers:			
62 octane and below	5.00 – 5.25	5.00 – 5.125	5.00 – 5.125
68-70 octane (regular)	6.00 – 6.25	6.00 – 6.25	6.00 – 6.25
60-62, 400 e.p. gasoline	.....	5.125– 5.25	5.125– 5.25

†WEST TEXAS and NEW MEXICO (Prices represent majority of quotations or sales, F.o.b. W. Texas and N. Mexico refineries for unrestricted shipment unless otherwise noted.)

U. S. Motor gasoline, by octane numbers:			
62 octane and below	4.75	4.75	4.75 – 5.125
63-67 octane	5.125	5.125	5.00 – 5.125
68-70 octane (regular)	5.75	6.125	5.625– 6.125

†EAST TEXAS (Prices represent majority of quotations or sales, F.o.b. East Texas refinery for unrestricted shipment unless otherwise noted).

U. S. Motor gasoline, by octane numbers:			
62 octane and below	.....	*4.75	*4.625– 4.75
60-62, 400 e.p. gasoline	*4.75	*4.75	*4.75

*Nominal.

NORTH LOUISIANA (Prices represent majority of quotations or sales, f.o.b. Louisiana refineries, for shipment within Louisiana and into Arkansas).

U. S. Motor gasoline:			
62 octane and below	5.50 – 5.75	5.50 – 5.75	5.50 – 5.75
63-67 octane	5.75 – 6.25	5.75 – 6.25	5.75 – 6.25
68-70 octane (regular)	6.25 – 6.50	6.25 – 6.50	6.25 – 6.50

†Refiners report they generally receive from 0.25c to 0.5c per gallon more for gasoline and kerosine for local or differential territory shipment.

	Feb. 22	Feb. 15	Feb. 8
ARKANSAS (Prices represent majority of quotations or sales, f.o.b. Arkansas refineries, for shipment within Arkansas and into Louisiana).			
U. S. Motor Gasoline:			
62 octane and below	5.00 – 5.50	5.50 – 5.75	5.50 – 5.75
63-67 octane	6.00 – 6.25	6.25 – 6.50	6.25 – 6.50
68-70 octane (regular)	6.50	6.50 – 6.75	6.50 – 6.75
OHIO (Quotations of S. O. Ohio. Delivered any point in Ohio).			
U. S. Motor gasoline	8.50	8.50	8.50
Above 65 octane no.	8.75	8.75	8.75

Natural Gasoline

(Prices shown f.o.b. Group 3 and Breckenridge represent majority of quotations or sales to blenders on freight basis shown below. Shipments, however, may originate in other Mid-Continent manufacturing districts, such as Panhandle Texas, Southwest Texas or Kansas.)

F.O.B. GROUP 3			
Grade 26-70	3.75	3.75	3.75
F.O.B. BRECKENRIDGE			
Grade 26-70	3.50	3.50	3.50
CALIFORNIA (F.o.b. plants in Los Angeles basin)			
75-85, 375-390 e.p. for blending	7.125– 7.50	7.125– 7.50	7.25 – 7.50

Kerosine

WESTERN PENNA. (Prices represent majority of quotations or sales).

Bradford-Warren:			
45 w.w. kerosine	5.125– 5.25	5.125– 5.25	5.00 – 5.125
46 w.w. kerosine	5.25 – 5.375	5.25 – 5.375	5.125– 5.25
47 w.w. kerosine	5.375– 5.50	5.375– 5.50	5.25 – 5.375
Other districts:			
45 w.w. kerosine	5.125– 5.25	5.125– 5.25	5.00 – 5.125
46 w.w. kerosine	5.25 – 5.375	5.25 – 5.375	5.125– 5.25
47 w.w. kerosine	5.375– 5.50	5.375– 5.50	5.25 – 5.375

OKLAHOMA (Prices represent majority of quotations or sales, f.o.b. Oklahoma refineries).

41-43 w.w. kerosine	4.125– 4.375	4.125– 4.375	4.00 – 4.375
42-44 w.w. kerosine	4.25 – 4.50	4.25 – 4.50	4.125– 4.50

KANSAS (F.o.b. refinery Kansas destination).

41-43 w.w. kerosine	4.375	4.25 – 4.375	4.00 – 4.25
42-44 w.w. kerosine	4.50	4.375– 4.50	4.125– 4.375

†NORTH TEXAS (Prices represent majority of quotations or sales, f.o.b. Wichita Falls district for shipment to Texas and New Mexico destinations; Group 3 prices quoted on northern shipments).

41-43 w.w. kerosine	4.25 – 4.375	4.25 – 4.375	4.00 – 4.25

†EAST TEXAS (Prices represent majority of quotations or sales, f.o.b. East Texas refinery for unrestricted shipment unless otherwise noted).

41-43 w.w. kerosine	*4.00 – 4.25	*4.00 – 4.25	*4.00 – 4.25

*Nominal.

NORTH LOUISIANA (Prices represent majority of quotations or sales, f.o.b. Louisiana refineries, for shipment within Louisiana and into Arkansas).

41-43 w.w. kerosine	4.375– 4.50	4.25 – 4.50	4.25 – 4.50

ARKANSAS (Prices represent majority of quotations or sales, f.o.b. Arkansas refineries, for shipment within Arkansas and into Louisiana).

41-43 w.w. kerosine	†5.00	†5.00	†5.00

*Nominal.
†Only one refiner quoting.

CALIFORNIA (F.o.b. California refineries).

38-40 w.w. kerosine	5.00 – 6.00	3.50 – 5.00	4.75 – 5.00

Gas and Fuel Oils

WESTERN PENNA. (Prices represent majority of quotations or sales).

Bradford-Warren:			
36-40 fuel oil	4.50 – 4.625	4.50 – 4.625	4.50 – 4.625
Other districts: (Excluding Pittsburgh District Prices).			
36-40 fuel oil	4.25 – 4.375	4.25 – 4.375	4.25 – 4.375

OKLAHOMA (Prices represent majority of quotations or sales, f.o.b. Oklahoma refineries).

No. 1 white fuel oil	4.00 – 4.25	4.00 – 4.25	3.875– 4.25
No. 1 straw fuel oil	3.875– 4.125	3.875– 4.125	3.75 – 4.125
No. 2 straw fuel oil	3.625– 3.875	3.625– 3.875	3.625– 3.875
No. 2 dark fuel oil	3.50 – 3.75	3.50 – 3.75	3.50 – 3.75
U. G. I. gas oil	*3.25	*3.25	*3.25

*Only one refiner quoting.

(*Continued on page 33*)

Eastern TEXAS JOBBERS

You too CAN SEE THE ADVANTAGE

in being the possessor of a profitable MARATHON franchise. Recently acquired Marathon jobbers attest they have profited by substantial increases in business. THE OHIO OIL COMPANY, one of the largest producers of crude oil, will give to reliable and aggressive jobbers exclusive franchises to distribute the well known MARATHON PRODUCTS.

MARTHON Endurance MOTOR OILS are refined from the cream of Ranger Parafin-base Crude which is unsurpassed for its lubricating qualities.

MARATHON Timed GASOLINES represent a forward step in improved motor fuel and give a maximum of power and mileage per gallon.

NOW is the time to investigate this most unusual opportunity to avail yourself of a MARATHON Exclusive Franchise. Your inquiry entails no obligation whatever. Write, phone or wire - - - our representative will call and gladly explain the complete proposition. We are certain MARATHON will merit your consideration.

MARATHON
"Endurance Motor Oils"

•

TROXOIL
Motor Oils

•

MULTILUBE
Motor Oils

•

PRIVATE BRAND OILS
Compounded to Jobbers' Specifications

•

MARATHON
"Timed"
Gasoline

MARATHON PRODUCTS
REST IN THE LONG RUN
LINCO

THE OHIO OIL COMPANY

GENERAL OFFICES - - - - FINDLAY, OHIO

ROBINSON, ILLINOIS TULSA, OKLAHOMA FT. WORTH, TEXAS

REFINERY TANK CAR MARKETS

Prices in cents per gallon, tank car lots, except where otherwise noted. Inter-refinery and export prices not included. Federal, state or municipal taxes not included. Prices quoted apply on products made from legally produced crude.

Oklahoma (cont'd)

	Feb. 22	Feb. 15	Feb. 8
Fuel Oils: (Prices per barrel of 42 U. S. gallons)			
28-30 zero	3.50 – 3.625	3.50 – 3.625	3.50 – 3.625
28-30	$1.20 –$1.25	$1.20 –$1.25	$1.15 –$1.25
24-26	*$0.85 –$0.90	*$0.85 –$0.90	*$0.85 –$0.90
18-22	*$0.825–$0.90	*$0.825–$0.90	*$0.825–$0.90
14-16	*$0.80 –$0.85	*$0.80 –$0.85	*$0.782–$0.785

KANSAS (F.o.b. refinery, Kansas destination)

No. 1 p.w. fuel oil	4.125– 4.375	4.00	3.875– 4.00
18-22 fuel oil (per bbl.)	.....	*$0.80 –$0.85	$0.80 –$0.85
10-14 fuel oil (per bbl.)	$0.775–$0.85	*$0.75 –$0.80	$0.725–$0.75

*Nominal.

NORTH TEXAS (Prices represent majority of quotations or sales, f.o.b. Wichita Falls district for shipment to Texas and New Mexico; Group 3 prices quoted on northern shipments).

No. 1 straw, fuel oil	.....	*3.875	*3.75 – 3.875
No. 1 white, fuel oil	*4.00	*4.00	*3.875– 4.00
No. 2 fuel oil	*3.50 – 3.625	*3.50 – 3.625	*3.50 – 3.625
U.G.I. gas oil	2.625– 2.75	2.625– 2.75	2.50 – 2.625
24-26 fuel oil (per bbl.)	$0.80 –$0.85	$0.80 –$0.85	$0.775–$0.80
18-22 fuel oil (per bbl.)	$0.775–$0.80	$0.775–$0.80	$0.75

*Nominal.

WEST TEXAS (Prices represent majority of quotations or sales, f.o.b. West Texas refineries for unrestricted shipment unless otherwise noted).

No. 2 fuel oil	*3.50 – 3.75	*3.50 – 3.75	*3.50 – 3.75
18-22 fuel oil (per bbl.)	.....	**	$0.725–$0.75

*Nominal. **No sales or quotations reported.

EAST TEXAS (Prices represent majority of quotations or sales, f.o.b. East Texas refineries for unrestricted shipment unless otherwise noted).

No. 1 white, fuel oil	*3.875– 4.00	*3.875– 4.00	*3.875– 4.00
No. 2 fuel oil	*3.625– 3.75	*3.625– 3.75	*3.625– 3.75
U.G.I. gas oil	.....	**	*2.625– 2.75
24-26 fuel oil (per bbl.)	.....	**	*$0.725–$0.75
20-24 fuel oil (per bbl.)	.....	**	*$0.70 –$0.725

*Nominal. **No sales or quotations reported.

NORTH LOUISIANA (Prices represent majority of quotations or sales f.o.b Louisiana refineries, for shipment within Louisiana and into Arkansas).

No. 2 fuel oil	3.50 – 3.625	3.50 – 3.625	3.50 – 3.625
U.G.I. gas oil	.....	*	2.625
20-24 fuel oil (per bbl.)	$1.15	$1.15	$1.15 –$1.20
16-20 fuel oil (per bbl.)	$1.00 –$1.05	$1.00 –$1.05	$1.05 –$1.10
10-14 fuel oil (per bbl.)	$0.75 –$0.825	$0.75 –$0.80	$0.80 –$0.85

*No sales or quotations reported.

ARKANSAS (Prices represent majority of quotations or sales, f.o.b. Arkansas refineries, for shipment within Arkansas and into Louisiana).

No. 2 fuel oil	*3.75	*3.75	*3.75
28-30 gas oil, zero	*3.625	*3.625	*3.625
20-24 fuel oil (per bbl.)	.....	**	**
16-20 fuel oil (per bbl.)	.....	**	**
10-14 fuel oil (per bbl.)	$0.70	**	$0.65

*Only one refiner quoting.
**No quotations or sales reported.

CALIFORNIA

San Joaquin Valley, per bbl.:			
Grade C fuel oil	$0.65 –$0.85	$0.80 –$0.90	$0.85 –$0.90
Diesel fuel oil	$1.15 –$1.68	$1.26 –$1.68	$1.26 –$1.68
Stove distillate	$1.47 –$2.10	$1.47 –$2.10	$1.68 –$2.10
Los Angeles, per bbl.:			
Grade C fuel oil	$0.70 –$1.05	$0.75 –$1.05	$0.95 –$1.05
Diesel fuel	$1.15 –$1.68	$1.15 –$1.68	$1.26 –$1.68
Stove distillate	$1.26 –$2.10	$1.35 –$1.89	$1.68 –$2.10
San Francisco, per bbl.:			
Grade C fuel oil	$1.22	$1.26	$1.26
Diesel fuel	$1.89	$1.89	$1.89
Stove distillate	$2.31	$2.31	$2.31

Neutral Oils

WESTERN PENNA. (Prices represent majority of quotations or sales).

Viscous Neutrals (Viscosity at 70° F.)

200 Vis. (180 at 100°) No. 3 color, 420-425 flash:			
0 pour test	25.50 –26.00	25.50 –26.00	25.50 –26.00
10 pour test	24.50 –25.00	24.50 –25.00	24.50 –25.00
15 pour test	24.00 –24.50	24.00 –24.50	24.00 –24.50
25 pour test	23.00 –23.50	23.00 –23.50	23.00 –23.50
180 Vis. (165 at 100) No. 3 color, 410-415 flash:			
25 pour test	22.00 –22.50	22.00 –22.50	22.00– 22.50
150 Vis. (143 at 100) No. 3 color, 400-405 flash:			
0 pour test	22.00 –22.50	22.00 –22.50	22.00 –22.50
10 pour test	21.00 –21.50	21.00 –21.50	21.00 –21.50
15 pour test	20.50 –21.00	20.50 –21.00	20.50 –21.00
25 pour test	19.50 –20.00	19.50 –20.00	19.50 –20.00

SOUTH TEXAS (Quotations of majority of sellers for tank car lots, f.o.b. South Texas refineries, for domestic shipment).

Vis. Color			
Pale Oils:	(*Viscosity at 100° F.; pour test* 0)		
100 No. 1½-2½	5.50 – 6.00	5.50 – 6.00	5.50 – 6.00
200 No. 2-3	7.50 – 8.00	7.50 – 8.00	7.50 – 8.00
300 No. 2-3	8.00 – 8.50	8.00 – 8.50	8.00 – 8.50
500 No. 2½-3½	9.00 – 9.50	9.00 – 9.50	9.00 – 9.50
750 No. 3-4	9.50 –10.00	9.50 –10.00	9.50 –10.00
1200 No. 3-4	10.00 –10.50	10.00 –10.50	10.00 –10.50
2000 No. 4	10.50 –11.00	10.50 –11.00	10.50 –11.00

	Feb. 22	Feb. 15	Feb. 8
Red Oils:			
200 No. 5-6	7.50 – 8.00	7.50 – 8.00	7.50 – 8.00
300 No. 5-6	8.00 – 8.50	8.00 – 8.50	8.00 – 8.50
500 No. 5-6	9.00 – 9.50	9.00 – 9.50	9.00 – 9.50
750 No. 5-6	9.50 –10.00	9.50 –10.00	9.50 –10.00
1200 No. 5-6	10.00 –10.50	10.00 –10.50	10.00 –10.50
2000 No. 5-6	10.50 –11.00	10.50 –11.00	10.50 –11.00

Note: South Texas red oil prices shown above cover oils with green cast; blue cast red oils are slightly lower in some cases.

MID-CONTINENT (Viscosity at 100° F.; F.o.b. Tulsa basis. Prices represent majority of quotations or sales).

	(0 to 10 Pour Point)		
Pale Oils			
Vis. Color			
60-85—No. 2	5.25	5.25	5.25
86-110—No. 2	5.75	5.75	5.75
150—No. 3	9.00	9.00	9.00
180—No. 3	10.00	10.00	10.00
200—No. 3	10.50	10.50	10.50
250—No. 3	11.50	11.50	11.50
280—No. 3	12.50	12.50	12.50
300—No. 3	13.00	13.00	13.00
Red Oils:			
180—No. 5	9.00	9.00	9.00
200—No. 5	9.50	9.50	9.50
250—No. 5	10.50	10.50	10.50
280—No. 5	11.50	11.50	11.50
300—No. 5	11.75	11.75	11.75

Note: Viscous and non-viscous oils, 15 to 25 pour point are generally quoted 0.5c under 0 to 10 pour point oils. Viscous oils (150-300 vis.), No. 4 color, are generally quoted 0.5c above No. 5 color oils.

CHICAGO (F.o.b. Chicago District refineries) (Vis. at 100° F.).

Pale Oils *15 to 30 pour point:			
Vis. Color			
60-85—No. 2	6.50	6.50	6.50
86-110—No. 2	7.00	7.00	7.00
150—No. 3	9.50	9.50	9.50
180—No. 3	10.50	10.50	10.50
200—No. 3	11.00	11.00	11.00
250—No. 3	12.00	12.00	12.00
Red Oils *15 to 30 Pour Point:			
180—No. 5	9.50	9.50	9.50
200—No. 5	10.00	10.00	10.00
250—No. 5	11.00	11.00	11.00
280—No. 5	12.00	12.00	12.00
300—No. 5	12.25	12.25	12.25

*Oils with 0-10 pour point are quoted at 0.5c higher. To obtain prices delivered in Chicago add 0.25c per gal.

Cylinder Stocks

MID-CONTINENT (F.o.b. Tulsa basis. Prices represent majority of quotations or sales).

Bright Stocks:			
190-200 Vis. at 210° D	22.00	22.00	21.50
150-160 Vis. at 210° D:			
0 to 10 pour point	19.00	19.00	18.50
10 to 25 pour point	18.50	18.50	18.00
25 to 40 pour point	18.00	18.00	17.50
150-160 Vis. at 210° E	18.00	18.00	17.50
120 Vis. at 210° D:			
0 to 10 pour point	18.00	18.00	17.50
10 to 25 pour point	17.50	17.50	17.00
25 to 40 pour point	17.00	17.00	16.50
600 Stm. Rfd. Dark Green	5.50 – 7.50	5.50 – 7.50	5.00 – 5.75
600 Stm. Rfd. Olive Green	7.00 – 8.00	7.00 – 8.00	6.50 – 7.50
631 Steam Refined	*15.50	*15.50	*14.50
Black Oil	3.50	3.50	3.50

*Only one refiner quoting.

CHICAGO (F.o.b. Chicago district refineries) (Viscosity at 210°).

Unfiltered Steam Refined:			
140	9.00	9.00	9.00
160	10.00	10.00	10.00
200	11.00	11.00	11.00
Bright stocks, 160 vis. at 210 No. 8 color:			
0 to 10 pour point	20.75	20.75	20.25
15 to 25 pour point	20.25	20.25	19.75
30 to 40 pour point	19.75	19.75	19.25
E filtered Cyl. Stock	15.00	15.00	15.00

To obtain prices delivered in Chicago, add 0.25c per gal.

WESTERN PENNA. (A.S.T.M. tests; prices represent majority of quotations or sales, to car unloaders).

600 stm. rfd. filterable	15.50 –16.00	15.50 –16.00	14.50 –15.00
650 steam refined	16.50 –17.00	16.50 –17.00	16.00 –16.50

(*Continued on page 35*)

barge prices 0.5 cent a gallon the second week of February dropped back 0.25 cent last week, bringing the tank car price of 65 octane and above to 7 cents. Others continued to quote 7.25 cents.

The price recessions generally were attributed to unsettled conditions in tank wagon and consumer tank car markets in northern New Jersey and metropolitan New York City. These markets had been advanced 0.5 cent prior to the increase in jobber prices but some companies backed down when others failed to follow the advance.

Kerosine demand was fairly good from home burner owners, distributors said, although the lack of cold weather has curtailed consumption considerably. Some distributors reported that kerosine and light fuel oil sales were down as much as 23 per cent compared to last winter, despite the increase in oil burner installations.

California

Japanese Navy Buys Crude

LOS ANGELES, Feb. 19.—Resumption of bunkering business, through the settlement of the marine strike, and the belief that large scale buying of crude and fuel oil by Oriental interests would continue throughout the summer were stabilizing influences last week in Pacific Coast fuel markets.

During the week bids were opened for March shipment of 25,000 tons of crude oil for the Japanese Navy, which operates its own refinery and is chiefly interested at present in securing supplies of crude suitable for the production of aviation gasoline. In the past, the Japanese Navy has usually entered the California market in the spring and has then contracted for its requirements for crude and fuel oil for a major part of the year. Contracts to take care of these naval needs have already been placed this year and immediate delivery has been specified. Indications were that additional bids for crude and fuel oil would be invited during subsequent months of 1937.

In the domestic market, fuel oil ranged from $0.75 per barrel for heavy grades to $0.85 per barrel for light grades at major company plants in the San Joaquin Valley. In the Los Angeles Basin area, quotations for similar products ranged, respectively, from $0.95 to $1.05 per barrel. Small quantities of fuel oil were available at independent plants in the Basin at $0.70 per barrel and in the Valley at $0.65 per barrel.

Low grade fuel oil from the Venice and Redondo fields, with high sulfur content, was quoted at $0.70 per barrel. It found buyers because of the scarcity of higher grade fuel oil at independent plants in the Basin.

Diesel oil was quoted at $1.68 at major company plants in both the Valley

(*Continued on page* 40)

Fuel Oil . . OFFERINGS OF HEAVY GRADES LIMITED

N. P. N. News Bureau

CLEVELAND, Feb. 22

HEAVY oils continued to get the most play in fuel oil markets the third week of February. Prices generally were unchanged although more sales were reported at the highs of the market price ranges. Light fuels were moving better from some refinery districts than from others.

Demand for heavy fuels exceeded supply. Buyers were placing standing orders for any oil available over and above their regular takings. Price was less of a factor than a source of supply.

Light fuels still were hampered by unusually warm weather. In some districts demand was less active, although some refiners still were behind on orders placed earlier in the month.

* * *

TULSA, Feb. 22.—Button, button, who's got fuel oil? That was the game industrialists and railroads were playing with Mid-Continent refiners last week. In this game, the object of the search was pretty elusive. This especially was true of No. 1 oil and heavy industrial fuels. They were in active demand.

Occasionally a buyer found suppliers who had small quantities of fuel for immediate shipment, and rising prices were paid to get the oil rolling.

One refiner said that when railroads found him shipping heavy fuel to customers other than his usual ones, they soon came around with a blanket order for any available oil. This buying was in addition to their contract orders based on price of crude.

Several observers last week expressed the opinion that the price differential between No. 1 oil and the Nos. 2 and 3 oils would widen as the heating oil season progressed. They based this belief on the assumption that No. 1 oil would remain scarce and command higher prices. Heavier oils, they believed, would remain at about present prices. No. 1 oil, they indicated, probably would advance proportionately with kerosine and therefore break away from heavier grades. So far there have been no changes to substantiate this belief.

* * *

NEW YORK, Feb. 22.—Light fuel oils were fairly active at eastern seaboard terminals last week, although traders generally said that the weather was too warm to cause any large drafts on stocks.

Little change was noted in tank car or barge prices. Reports were that while there was now no shortage of these oils for prompt shipment in the open market, at the same time suppliers did not have excessive stocks.

Export demand for gas oil at the Gulf Coast has kept a large portion of this product from moving around to the east coast, and suppliers said prices might have forced down if the oil had been brought around in the face of the light jobber and distributor demand.

Heavy fuel oils were moving fairly well to consumers. No price changes were reported.

* * *

CHICAGO, Feb. 22.—Heavy fuel oils were unusually firm in the Mid-Western market the week ended Feb. 20. Buyers continued to virtually flood the market with inquiries, while sellers were handicapped by lack of fuel to offer.

One car of No. 6 oil was reported sold last week at 7.5 cents a barrel above general market quotations for this grade. This sale, while indicative of the firm market, was not considered a criterion of general market prices. The seller said he was able to get a price above the market

(*Continued on page* 38)

FUEL OILS

Prices in Effect Feb. 22, 1937

Following are tank wagon prices of various grades of heating oil at the points shown in various territories. Prices are in cents per gallon.

	No. 1	No. 2	No. 3	No. 4
S. O. NEW JERSEY				
Newark, N. J.	*	6.50	6.50	6.50
Atlantic City, N. J.	*	6.5	6.5	6
Baltimore, Md.	*	6.75	6.75	6.25
Washington, D. C.	*	7.00	7.00	7.00

Discounts: At Newark and Atlantic City, purchasers taking 50,000 gals. get discount of 0.5c per gal.

SOCONY-VACUUM OIL CO., INC.

(S. O. New York Division)

New York City	*	7.00	7.00	6.5
Albany, N. Y.	*	7.00	7.00	6.5
Rochester, N. Y.	*	7.00	7.00	7.00
Boston, Mass.	*	6.75	6.75	6.75
Bangor, Me.	*	5.75	5.75	5.75
Manchester, N. H.	*	6.75	6.75	6.75
Burlington, Vt.	*	7.50	7.50	....
New Haven, Conn.	*	6.25	6.25	6.25
Providence, R. I.	*	6.75	6.75	6.25

Discounts: At New York City, consumers taking 10,000 to 50,000 gals., get 0.25c per gal. discount when minimum amount has been reached; above 50,000 gals. 0.5c. Contract buyers are paying 0.25c less than above prices at New York City, Albany, New Haven and Providence due to top-price contracts.

*Prices for No. 1 fuel in S. O. New Jersey and Socony-Vacuum territories same as for kerosine, which see in tank wagon table for various cities; prices change with kerosine.

ATLANTIC REFINING

Philadelphia, Pa.	7.25	6.00	6.00	5.50
Allentown, Pa.	7.75	6.50	6.50	6.50
Wilmington, Del.	8.00	6.25	6.00	5.75
Springfield, Mass.	7.50	6.25	....	6.25
Worcester, Mass.	8.00	6.75	....	6.75
Hartford, Conn.	7.5	6.50	....	6.50
S. O. OHIO				
*Ohio Statewide	8.00	7.5	7.00	6.75

Note: S. O. Ohio prices are for hose dumps, bucket dumps are 0.5c per gallon higher.

Except Cleveland Division and City of Toledo. In Cleveland Division (Cuyahoga, Lake and Geauga counties), No. 1 price is same as statewide; Nos. 2, 3 and 4 are 0.5c higher; No. 5 is priced 0.25c lower than No. 4. In Toledo No. 2 is 0.5c lower than statewide, others same.

S. O. INDIANA

Stanolex Fuel and Furnace Oils

	No. 1 Fuel	Stanolex Furnace
Chicago	7.00	7.00
Indianapolis	....	*11.7
Detroit	7.1	7.1
Milwaukee	8	7.3
Minneapolis	7.5	7.5
Sioux City	7.1	7.1
St. Louis	7.5	6.8
Kansas City	6.5	6.5

*Includes state tax of 4c.

Note: Small-lot deliveries of light fuel oils range up to 2c higher than above quotations.

REFINERY TANK CAR MARKETS

Prices in cents per gallon, tank car lots, except where otherwise noted. Inter-refinery and export prices not included. Federal, state or municipal taxes not included. Prices quoted apply on products made from legally produced crude.

Cylinder Stocks (cont'd)

Western Pennsylvania (cont'd)

	Feb. 22	Feb. 15	Feb. 8
600 flash	17.50 -18.00	17.50 -18.00	17.00 -17.50
630 flash	19.00 -19.50	19.00 -19.50	18.00 -18.50
600 Warren E	17.50 -18.00	17.50 -18.00	17.00 -17.50
Bright stock, 145-155 vis. at 210°, 540-550 flash, No. 8 color:			
10 pour test	26.00 -26.50	26.00 -26.50	25.50 -26.00
15 pour test	25.00 -25.50	25.00 -25.50	24.50 -25.00
20 pour test	24.00 -24.50	24.00 -24.50	23.50 -24.00
25 pour test	23.00 -23.50	23.00 -23.50	22.50 -23.00

Petrolatums

WESTERN PENNA. (Per pound, in barrels, carload lots, f.o.b. Penna. refineries. In tank cars, 0.5c per pound less. Quotations by majority of refiners making petrolatums)

Snow white	6.625	6.625	6.625
Lily White	5.625	5.625	5.625
Cream White	4.625	4.625	4.625
Light Amber	2.75	2.75	2.75
Amber	2.50	2.50	2.50
Red	2.00 - 2.125	2.00 - 2.125	2.00 - 2.125

Wax

	Feb. 22	Feb. 15	Feb. 8
WESTERN PENNA. (Prices represent majority of quotations or sales, per pound, f.o.b. New York)			
122-124 wh. crude scale, A.m.p.	2.65 - 2.70	2.65 - 2.70	2.60 - 2.65
124-126 wh. crude scale, A.m.p.	2.70 - 2.75	2.70 - 2.75	2.65 - 2.70
OKLAHOMA (Prices represent majority of quotations or sales, per pound in barrels; in a few instances, per pound in burlap bags; f.o.b. Oklahoma refineries)			
124-126 wh. crude scale, A.m.p.	2.625- 2.75	2.625- 2.75	2.625- 2.75
CHICAGO (Quotations of majority of sellers f.o.b Chicago district refineries, in bags, carload lots. Melting points are E.M.P. (A.S.T.M.) methods; add 3° F. to convert into A.m.p.)			
Fully refined:			
122-124	4.65 - 4.75	4.65 - 4.75	4.65 - 4.75
125-127	4.90 - 5.00	4.90 - 5.00	4.90 - 5.00
127-129	5.05 - 5.15	5.05 - 5.15	5.05 - 5.15
130-132	*5.45 - 5.55	*5.45 - 5.55	*5.45 - 5.55
132-134	*5.70 - 5.80	*5.70 - 5.80	*5.70 - 5.80
135-137	*6.45 - 6.55	*6.45 - 6.55	*6.45 - 6.55

*Same prices quoted in bags or slabs loose.

MID-WESTERN TANK CAR MARKETS

Prices in cents per gallon, except where otherwise noted, in tank car lots, representing majority of quotations or sales made by Chicago sellers, from legally produced crude to jobbers on Group 3 (Oklahoma) freight basis, although shipments may originate in other South-western or Mid-western refining districts. Prices do not include state or federal taxes.

Gasoline

U. S. Motor gasoline:	Feb. 22	Feb. 15	Feb. 8
62 octane and below	4.50 - 4.875	4.50 - 4.875	4.50 - 4.875
63-67 octane	5.00 - 5.25	5.00 - 5.25	5.00 - 5.25
68-70 octane (regular)	5.50 - 5.75	5.50 - 5.75	5.50 - 5.75
60-62, 400 e.p.	4.50 - 4.875	4.50 - 4.875	4.50 - 4.875
64-66, 375 e.p.	5.00	5.00	5.00
68-70, 350-360 e.p.	5.25	5.25	5.25

*Nominal.

Kerosine

41-43 w.w.	4.125- 4.25	4.125- 4.25	4.125- 4.25
42-44 w.w.	4.25 - 4.375	4.25 - 4.375	4.25 - 4.375

Fuel and Gas Oils

Domestic:			
No. 1 prime white	4.00 - 4.125	4.00 - 4.125	3.875- 4.00
No. 1 straw	3.75 - 4.00	3.75 - 4.00	3.75 - 3.875

	Feb. 22	Feb. 15	Feb. 8
No. 2 straw	3.625- 3.75	3.625- 3.75	3.625- 3.75
No. 2 dark	3.50 - 3.625	3.50 - 3.625	3.50 - 3.625
No. 3	3.50 - 3.625	3.50 - 3.625	3.50 - 3.625
No. 4 (per bbl.)	*$1.10 -$1.15	*$1.10 -$1.15	$1.05 -$1.10
No. 5 (per bbl.)	$0.875-$0.90	$0.875-$0.90	$0.80 -$0.85
Industrial:			
No. 4 (per bbl.)	*$0.95 -$1.05	*$0.95 -$1.05	$0.90 -$1.00
No. 5 (per bbl.)	$0.85 -$0.90	$0.85 -$0.90	$0.775-$0.85
No. 6 (per bbl.)	$0.825-$0.875	$0.825-$0.875	$0.725-$0.775
U.G.I. gas oil	2.75	2.75	2.75

*Nominal.

Naphtha and Solvent

(Tank car prices quoted f.o.b. Group 3 by majority of Chicago sellers)

Stoddard solvent	6.875	6.875	6.875
Cleaners' naphtha	7.375	7.375	7.375
V. M. & P. naphtha	7.375	7.375	7.375
Mineral spirits	6.375	6.375	6.375
Rubber solvent	7.375	7.375	7.375
Lacquer diluent	8.375	8.375	8.375

DAILY GASOLINE PRICES

Daily range of gasoline prices (cents per gallon) in tank cars, as reported in PLATT'S OILGRAM, (Week Ended Feb. 19, 1937)

	Feb. 15	Feb. 16	Feb. 17	Feb. 18	Feb. 19
U. S. Motor, 62 octane and below:					
East Texas	†4.75	†4.75	**	**	**
*North Texas	4.75 - 5.125	4.75 - 5.125	4.75 - 5.125	4.75 - 5.25	4.75 - 5.25
West Texas	4.75	4.75	4.75	4.75	4.75
Oklahoma	4.625- 5.125	4.625- 5.125	4.625- 5.125	4.625- 5.125	4.625- 5.125
Mid-Western (Group 3 basis)	4.50 - 4.875	4.50 - 4.875	4.50 - 4.875	4.50 - 4.875	4.50 - 4.875
U. S. Motor, 63-67 octane:					
*North Texas	5.00 - 5.50	5.00 - 5.50	5.00 - 5.50	5.00 - 5.50	5.125- 5.50
West Texas	5.125	5.125	5.125	5.125	5.125
Oklahoma	5.00 - 5.50	5.00 - 5.50	5.00 - 5.50	5.00 - 5.50	5.125- 5.50
Mid-Western (Group 3 basis)	5.00 - 5.25	5.00 - 5.25	5.00 - 5.25	5.00 - 5.25	5.00 - 5.25
U. S. Motor, 68-70 octane (regular)					
*North Texas	5.625- 6.125	5.625- 6.125	5.625- 6.125	5.625- 6.125	5.625- 6.125
West Texas	6.125	6.125	5.75	5.75	5.75
Oklahoma	5.75 - 6.125	5.75 - 6.125	5.75 - 6.125	5.75 - 6.125	5.75 - 6.125
Mid-Western (Group 3 basis)	5.50 - 5.75	5.50 - 5.75	5.50 - 5.75	5.50 - 5.75	5.50 - 5.75
Motor Gasoline, 60-64 octane					
New York harbor	†7.00	†6.75 - 7.00	†6.75 - 7.00	†6.75 - 7.00	†6.75 - 7.00
Philadelphia district	†6.50 - 7.00	†6.50 - 7.00	†6.50 - 7.00	†6.50 - 7.00	†6.50 - 7.00
Baltimore district	†7.00	†7.00	†7.00	†7.00	†7.00
Motor Gasoline, 65 octane & above					
New York harbor	†7.25	†7.00 - 7.25	†7.00 - 7.25	†7.00 - 7.25	†7.00 - 7.25
Philadelphia district	†6.75 - 7.25	†6.75 - 7.25	†6.75 - 7.25	†6.75 - 7.25	†6.75 - 7.25
Baltimore district	†7.25	†7.25	†7.25	†7.25	†7.25
U. S. Motor Gasoline, 58-62°					
Bradford-Warren (Western Penna.)	5.125- 5.25	5.125- 5.25	5.125- 5.25	5.125- 5.25	5.125- 5.25
Other districts (Western Penna.)	5.125- 5.25	5.125- 5.25	5.125- 5.25	5.125- 5.25	5.125- 5.25
Motor Gasoline, Minimum 60 octane					
Bradford-Warren (Western Penna.)	†7.00	†7.00	†7.00	†7.00	†7.00
Other districts (Western Penna.)	6.75 - 6.875	6.75 - 6.875	6.75 - 6.875	6.75 - 6.875	6.75 - 6.875
Motor Gasoline, Minimum 65 octane					
Bradford-Warren (Western Penna.)	†7.25	†7.25	†7.25	†7.25	†7.25
Other districts (Western Penna.)	7.00 - 7.125	7.00 - 7.125	7.00 - 7.125	7.00 - 7.125	7.00 - 7.125

*For shipment to Texas and New Mexico destinations; Group 3 prices are quoted on northern shipments.
†Nominal.
**No quotations or sales reported.

TANK WAGON, SERVICE STATION MARKETS

Tax column includes 1c federal tax, state gasoline tax, also city and county taxes as indicated in footnotes, and inspection fees, as shown in general footnote. These prices in effect Feb. 22, 1937 as posted by principal marketing companies at their headquarters offices, but subject to later corrections

S. O. New Jersey

ESSOLENE

	Consumer Tank Car	Dealer T.W.	Taxes	Posted S.S.	Kerosine T.W.
Atlantic City, N. J.	7.5	9	4	*	8
Newark, N. J.	7.5	8.5	4	*	8
Annapolis, Md.	8.6	10.1	5	*	10
Baltimore, Md.	8	9.5	5	*	9
Cumberland, Md.	9.4	11.9	5	*	10
Washington, D. C.	8	9.5	3	16	9
Danville, Va.	9.2	11.7	6	*	12.9
Norfolk, Va.	8	10.5	6	*	11.5
Petersburg, Va.	8.3	10.8	6	*	11.7
Richmond, Va.	8.3	10.8	6	*	11.7
Roanoke, Va.	9.5	12	6	*	12.9
Charleston, W. Va.	8.8	11.3	5	*	12.6
Parkersburg, W. Va.	8.1	10.6	5	*	11.2
Wheeling, W. Va.	9	10.5	5	*	12.2
Charlotte, N. C.	9.4	11.9	7	*	12.6
Hickory, N. C.	9.9	12.4	7	*	13
Mt. Airy, N. C.	9.7	12.2	7	*	12.8
Raleigh, N. C.	9	11.5	7	*	12.1
Salisbury, N. C.	9.5	12	7	*	12.7
Charleston, S. C.	8	10.5	7	*	11.1
Columbia, S. C.	9	11.5	7	*	12.1
Spartanburg, S. C.	9.7	12.2	7	*	12.9

*S. O. New Jersey transferred stations to dealers; no prices available.

Price basis to undivided dealers: Dealer t.w. price less 0.5c per gal.

Price basis to commercial consumers: Effective Nov. 2, 1936, in New Jersey, Maryland, District of Columbia, and small portion of Virginia, to contract and non-contract accounts, taking following deliveries at one time, by hose connection, prices based on consumer tank car price in effect at time and place of delivery: 500 gals. or more, 0.5c over t.c. price; less than 500 gals., 0.75c over; accounts not taking deliveries by hose connection, 1c over t.c.

Effective Jan. 7, 1937, in West Virginia and greater portion of Virginia, the following differentials apply above posted tank car price, on yearly purchases; up to 35,999 gals., 2.5c over t.c.; 36,000 to 119,999 gals., 2c; 120,000 to 239,999 gals., 1.5c; 240,000 to 479,999 gals., 1c; and over 480,000 gals., 0.5c. Non-contract accounts, 2.5c over posted t.c. price.

Effective Jan. 25, 1937, in North and South Carolina, deliveries of 50 gals. or more at one time by t.w. will be billed at a price equal to 2c per gal. over the posted consumer t.c. price in effect at time and place of delivery. Deliveries of less than 50 gals. at one time will be billed at a price equal to 6c per gal. over the posted consumer t.c. price.

Kerosine Discount: 1c off t.w. price for 25 gals. or more, under contract thru territory (Baltimore City contract not necessary) except no discount in state of New Jersey.

Socony-Vacuum Oil Co., Inc.

(S. O. New York Division)

SOCONY MOBILGAS

	Consumer Tank Car	"Split" Dealer T.W.	Taxes	Total "Split" Dealer T.W.	Kerosine T.W.
Metropolitan N. Y. City: Boroughs of Manhattan, Bronx and Brooklyn (Kings and Queens)	8	9.5	*4	13.5	7.5
Borough of Richmond (Staten Is.)	8	9.75	*4	13.75	7.5
Albany, N. Y.	8	9.5	4	13.5	8
Binghamton, N. Y.	9.25	10.8	4	14.8	8.75
Buffalo, N. Y.	8.67	10.3	4	14.3	8.25
Jamestown, N. Y.	8.28	10.8	4	14.8	8.25
Plattsburg, N. Y.	8.4	10.4	4	14.4	9
Rochester, N. Y.	8.74	10.3	4	14.3	8.25
Syracuse, N. Y.	8.7	10.3	4	14.3	9
Danbury, Conn.	8.3	9.8	4	13.8	8.25
Hartford, Conn.	8.1	9.6	4	13.6	7.5
New Haven, Conn.	8	9	4	13.5	7.5
Bangor, Me.	8.6	10.8	5	15.8	7.5
Portland, Me.	8	10.3	5	15.3	8.25
Boston, Mass.	8	9.5	4	13.5	7.5
Concord, N. H.	8.7	11.3	5	16.3	9
Lancaster, N. H.	9.6	12.3	5	17.3	10
Manchester, N. H.	8.5	10.8	5	15.8	8.5
Providence, R. I.	8	9.5	3	12.5	7.5
Burlington, Vt.	8.4	10.4	5	15.4	8.5
Rutland, Vt.	8.7	10.7	5	15.7	8

*Plus 2% city sales tax computed at time of each sale.

Note: Socony-Vacuum has transferred all service stations to dealers; no prices available.

Price basis to undivided dealers: 0.5c less than "split" dealer t.w.

Price basis to commercial consumers: Effective about Nov. 15, 1936 in New York and New England, for tank wagon delivery: monthly purchases of 25,000 gals. or over, pay consumer tank car price at point of delivery, plus 0.5c gal.; monthly purchases of 5,000 to 25,000 gals., pay undivided dealer tank wagon price at point of delivery; monthly purchases of less than 5,000 gals., pay divided dealer tank wagon price at point of delivery. Private consumers pay undivided dealer tank wagon price at point of delivery, plus 2c gal.

Atlantic Refining

ATLANTIC WHITE FLASH GASOLINE

	Commercial Tank Car	All Tax	Total Dealer T.W.	S.S.	Kerosine T.W.
Philadelphia, Pa.	7.5	5	14	17.5	10.5
Pittsburgh	8.5	5	15.5	20	11
Allentown	8.25	5	14.5	**	11
Erie	8	5	14.5	**	11
Scranton	8.25	5	14.5	**	11
Altoona	8.5	5	15.5	**	11
Harrisburg	8.25	5	14.5	**	11
Williamsport	8.5	5	15.5	**	11
Dover, Del.	...	5	14.5	**	11
Wilmington	...	5	13.5	**	11
Boston, Mass.	...	4	13.5	**	7.5
Springfield, Mass.	...	4	13.8	**	7.5
Worcester, Mass.	...	4	14.3	**	8
Fall River, Mass.	...	4	13.5	**	7.5
Hartford, Conn.	...	4	13.6	**	7.5
New Haven, Conn.	...	4	13.5	**	8
Providence, R. I.	...	3	12.5	**	7.5
Atlantic City, N. J.	...	4	13	**	8
Camden, N. J.	...	4	13	**	8
Trenton, N. J.	...	4	13	**	8
Annapolis, Md.	...	5	15.1	**	9.5
Baltimore, Md.	...	5	14.5	**	9
Hagerstown, Md.	...	5	15.5	**	10
Richmond, Va.	...	6	16.8	**	11.7
Wilmington, N. C.	...	7	17.6	**	11.3
Brunswick, Ga.	...	7	17	**	13
Jacksonville, Fla.	...	8	17	**	12

*Georgia has kerosine tax of 1c per gal., not included in above price.

**Atlantic Refining transferred stations to dealers; no prices available.

Price basis to undivided dealers: Dealer t.w. less 0.5c per gal.

Price basis to commercial consumer: Effective Nov. 5, 1936, on yearly gasoline purchases to contract accounts taking t.w. deliveries, based on posted tank car prices plus following amounts: 2,500 to 100,000 gals., 1c over t.c.; 100,000 gals., and over, 0.5c. Non-contract accounts taking 50 gals. or over at one time pay dealer t.w. price.

Discount on kerosine: Effective Oct. 29, 1936, in Pennsylvania and Delaware, 2c per gal. off t.w. price on t.w. deliveries of 25 gals. or more at one time.

S. O. Ohio

SOHIO X-70 GASOLINE

	Consumer T.W.	All Tax	Total Consumer T.W.		Kerosine T.W.
Ohio Statewide	13	5	18	‡	*13.5
Counties below statewide gasoline schedule: Ashtabula, Butler, Champaign, Clarke, Clermont, Clinton, Columbiana, Cuyahoga, Darke, Defiance, Delaware, Fayette, Fairfield, Franklin, Fulton, Geauga, Greene, Hamilton, Highland, Jefferson, Knox, Lake, Licking, Lorain, Lucas, Madison, Mahoning, Marion, Medina, Miami, Montgomery, Morrow, Muskingum, Pickaway, Portage, Preble, Ross, Stark, Summit, Trumbull, Warren and Williams	12	5	17		...
Paulding	11.5	5	16.5		...

RENOWN

(Third-Grade Gasoline)

Ohio Statewide	12.5	5	17.5	‡	...
Counties below statewide gasoline schedule: Butler, Clermont, Darke, Hamilton, Greene, Miami, Montgomery, Preble, Summit and Warren:	12	5	17		...
Ashtabula, Champaign, Clarke, Clinton, Columbiana, Cuyahoga, Defiance, Delaware, Fairfield, Fayette, Franklin, Fulton, Geauga, Highland, Jefferson, Knox, Lake, Licking, Lorain, Lucas, Madison, Mahoning, Marion, Medina, Morrow, Muskingum, Pickaway, Portage, Ross, Stark, Trumbull and Williams:	11.5	5	16.5	...	...
Paulding	9.5	5	14.5	...	...
Counties above statewide schedule: Hocking	13	5	18	...	...

S. O. Ohio—Cont'd

KEROSINE PRICES

(Off Statewide Level)

Kerosine prices are off statewide level in the following counties:

Gallia *13

Allen, Ashtabula, Auglaize, Champaign, Columbiana, Darke, Fulton, Geauga, Hancock, Hardin, Henry, Logan, Mahoning, Mercer, Portage, Preble, Putnam, Shelby, Summit, Trumbull, Union, Van Wert and Wyandot *12.5

Defiance and Paulding *12

Statewide Prices to Resellers & Agents

(These gasoline prices are based on low of Group 3, 68-70 octane, gasoline tank car market as published in Platt's Oilgram, to the nearest 0.5c)

	†Undivided Accounts	Divided Accounts	**Authorized Agents
Including tax Sohio X-70	16.5	17	17
Renown (3rd grade)	16	16.5	16.5

‡Effective Sept. 16, 1936, S. O. Ohio began leasing service stations to dealers. No statewide s.s. price available although the company does post s.s. prices locally at points where it still operates stations.

Sales tax: Ohio's 3% sales tax, effective Jan. 27, 1935, is added "where assessable, to regular posted prices," S. O. Ohio says.

*Kerosine prices include 1c state tax.

†Excluding authorized agents.

**Excluding 0.5c rental.

Commercial contract tank wagon sales statewide Q. D. A. policy: on all motor gasolines, thru Ohio, effective Sept. 16, 1936, except counties mentioned hereafter, off posted t.w. price, on deliveries per month: 0 to 999 gals., posted t.w. price; 1,000 to 9,999 gals., 1.5c per gal.; 10,000 gals., and over, 2.5c. Q. D. A. is off statewide schedule in the following counties: Allen, Auglaize, Clinton, Columbiana, Crawford, Darke, Defiance, Delaware, Fulton, Geauga, Hancock, Hardin, Henry, Highland, Jefferson, Knox, Lake, Logan, Lorain, Marion, Medina, Mercer, Pickaway, Putnam, Ross, Shelby, Union, Van Wert, Washington, Williams and Wyandot: for this information, write National Petroleum News.

In addition, effective Feb. 4, 1937, commercial consumer t.w. trade on contract, for full compartment dumps, on 1,000 gals. or more per month, or 12,000 gals. or more per year. S. O. Ohio offers, on Sohio Ethyl and X-70 gasolines, a price billed at 0.5c per gal. above posted statewide tank car price, on date of delivery, in the following counties: Cuyahoga, Franklin, Hamilton, Lucas, Mahoning, Montgomery, Summit and Trumbull. In Cuyahoga county, in purchases from 0 to 999 gals., 1.5c off t.w. price.

Price basis on kerosine to dealers and commercial consumers, posted at 3c per gal. below consumer t.w. price, any quantity.

S. O. Kentucky

CROWN GASOLINE

(Regular Grade)

	Consumer T.W.	All Tax	Total Consumer T.W.	Net Dealer	Kerosine T.W.
Covington, Ky.	12.5	6	18.5	15.5	11
Lexington, Ky.	13	6	19	16	11
Louisville, Ky.	13	6	19	16	10
Paducah, Ky.	13	6	19	16	10
Jackson, Miss.	14	7	21	18	13
Vicksburg, Miss.	13.5	7	20.5	17.5	13
Birmingham, Ala.	14	*8	22	19	13
Mobile, Ala.	11	*9	20	17	12
Montgomery, Ala.	14	*9	23	20	14
Atlanta, Ga.	14.5	7	21.5	18.5	14.5
Augusta, Ga.	13.5	7	20.5	17.5	14
Macon, Ga.	14	7	21	18	14.5
Savannah, Ga.	12.5	7	19.5	16.5	13
Jacksonville, Fla.	12	8	20	17	12
Miami, Fla.	12	8	20	17	12.5
Pensacola, Fla.	13.5	*9	22.5	19.5	12.5
Tampa, Fla.	12	*9	21	18	12

KYSO GASOLINE

(Third Grade)

Covington, Ky.	11	6	17	14.5	...
Lexington, Ky.	11.5	6	17.5	15	...
Louisville, Ky.	11.5	6	17.5	15	...
Paducah, Ky.	10.5	6	16.5	14	...
Jackson, Miss.	12.5	7	19.5	17	...
Vicksburg, Miss.	10.5	7	17.5	15	...
Birmingham, Ala.	12	*8	20	17.5	...
Mobile, Ala.	8.5	*9	17.5	15	...
Montgomery, Ala.	11.5	*9	20.5	18	...
Atlanta, Ga.	12	7	19	16.5	...
Augusta, Ga.	10	7	17	14.5	...
Macon, Ga.	11	7	18	15.5	...
Pensacola, Fla.	11.25	*9	20.25	17.75	...

Above prices include these inspection fees on both gasoline and kerosine, per gallon, figured on basis of 50 gallons per barrel:

Alabama, 1/40c on gasoline, 1/2c on kerosine; Arkansas, 1/5c per gal. in a single barrel, 1/20c per gal. in bulk; Florida, 1/8c; Illinois, 3/100c; Indiana, 1/2c per gal. in a single barrel; 3/10c per gal. in lots of 2 to 10 bbls., 1/5c for 10 to 50 bbls., 2/25c for over 50 bbls.; Kansas, 1/50c, (3/50c can be charged to meet inspection department expenses; Louisiana, 1/32c; Minnesota, 1/25c; Missouri, 3/100c; Nebraska, 3/100c; Nevada, gasoline, 1/20c; North Carolina, 1/4c; North Dakota, 1/20c; Oklahoma, 2/25c per gal., in lots of more than 50 bbls., 1/5c in lots less than 50 bbls.; South Carolina, 1/8c; South Dakota, 1/10c; Tennessee, 2/5c; and Wisconsin, 1/25c.

Kerosine inspection fee only: Iowa, 2/25c; Michigan, 4/5c per gal. for first 2 bbls.; 3/5c for next 3; 2/5c for next 5; 3/10c for next 15, and 1/5c per gal. in lots over 25 bbls.

TANK WAGON, SERVICE STATION MARKETS

Tax column includes 1c federal tax, state gasoline tax, also city and county taxes as indicated in footnotes, and inspection fees, as shown in general footnote. These prices in effect Feb. 22, 1937, as posted by principal marketing companies at their headquarters offices, but subject to later corrections

S. O. Kentucky—Cont'd

Note: With majority of service stations transferred to dealers by S. O. Kentucky, s.s. prices are discontinued and above net dealer prices substituted.

Discounts to tank wagon consumers: Effective Jan. 4, 1937, thru territory, on Crown gasoline, 3c per gal. below consumer t.w. price; on Kyso, 2.5c below.

Discounts on kerosine: Prices in Kentucky are net, but in other states subject to 2c discount.

**Taxes*: in the tax column is included these city and county gasoline taxes at the following points: Mobile, 2c city; Birmingham, 1c city; Montgomery, 1c city and 1c county; Pensacola and Tampa, both 1c city. Georgia and Mississippi kerosine prices include 1c state tax. Montgomery kerosine price includes 1c city tax.

**S. O. Kentucky transferred stations to dealers: no prices available.

S. O. Indiana

	Red Crown Total Tax	Dealer Prices Red Crown T.W.	Stanolind T.W.	Kerosine T.W.
Chicago, Ill	4	16	14	14	9 8
Decatur, Ill	4	16	14 5	14 5	9 8
Joliet, Ill	4	16	14 5	14 5	9 8
Peoria, Ill	4	16	14 5	14 5	9 8
Quincy, Ill	4	15 8	14 3	14 3	9 6
Indianapolis, Ind	5	17 7	16 2	16 2	†13 3
Evansville, Ind	5	17 5	16	16	†14 3
South Bend, Ind	5	17 9	16 4	16 4	‡13 3
Detroit, Mich	4	15 1	13 6	13 6	9 5
Grand Rapids, Mich	4	16 5	15	15	10 6
Saginaw, Mich	4	16 3	14 8	14 8	10 4
Green Bay, Wisc	5	17 7	16 2	16 2	10 5
Milwaukee, Wis	5	17 3	15 8	13 7	10 1
La Crosse, Wis	5	17 4	15 9	15 9	10 2
Minneapolis-St. Paul	4	16 4	14 9	14 9	10 2
Duluth, Minn	4	16 8	15 3	15 3	10 6
Mankato, Minn	4	16 4	14 9	14 9	10 2
Des Moines, Ia	4	15 8	14 3	14 3	9 6
Sioux City, Ia	4	16	14 5	14 5	9 8
Davenport, Ia	4	16	14 5	14 5	9 8
Mason City, Ia	4	16 2	14 7	14 7	10
St. Louis, Mo	†4	15 7	14 2	14 2	9 5
Kansas City, Mo	†4	15 4	13 9	13 9	8 6
St. Joseph, Mo	†4	15 4	13 9	13 9	9 2
Fargo, N. D	4	17 4	15 9	15 9	11 2
Minot, N. D	4	18 6	17 1	17 1	12 4
Huron, S. D	*5	17 8	16 3	16 3	10 6
Wichita, Kans	4	14 9	13 4	12 3	8 6

†St. Louis, Kansas City and St. Joseph prices include 1c city tax. ‡Includes 4c state tax.

*South Dakota gasoline and kerosine prices include 0.1c for sales tax.

Note: Effective July 1, 1935 in Iowa, and Sept. 11, 1936, in Indiana, Kansas, Michigan, Minnesota, Missouri, South Dakota and Wisconsin, and effective Oct. 1, 1936 in Illinois and North Dakota, S. O. Indiana discontinued posting service station prices, posting only a t.w. and a dealer price.

Discount to commercial consumers: Effective Jan. 1, 1935, thru territory, except Michigan effective Feb. 1, on purchases per month, discount off t.w. prices; all gasolines, 25 to 1,000 gals., at t.w. price; 1,000 gals., or more, 1.5c off t.w. on Ethyl and Red Crown, and 0.5c on Stanolind. Minimum delivery is 25 gals.

Subnormal Stanolind Points

Normally Stanolind tank wagon prices are 1c under normal Red Crown t.w. prices. Among subnormal points on Stanolind t.w. are these: Des Moines, 14.1c; Mason City, 13.9c; Huron, 16c; and Wichita, 11.5c, all including state and federal taxes.

S. O. Nebraska

STANDARD RED CROWN GASOLINE

	All Tax	T.W. Total	Dealer Price	Kerosine T.W.
Omaha, Neb	6	18 4	16 9	10 1
McCook	6	19 1	15 3	10 8
Norfolk	6	18 8	17 3	10 5
North Platte	6	19 2	17 7	10 9
Scottsbluff	6	19 9	18 4	10 6

Discounts to commercial consumers: for tank wagon deliveries covered only by Standard Commercial Consumer Contract, effective January 1, 1935.

S. O. Louisiana

ESSOLENE

	Consumer Tank Car	Dealer T.W.	Taxes	Posted S.S.	Kerosine T.W
Little Rock, Ark	8	10.5	7.5	**	11.5
Alexandria, La	8	10.5	8	**	*12
Baton Rouge, La	7.5	10	8	21.5	*12
New Orleans, La	7.5	10	*10	23.5	*11
Lake Charles, La	8.5	11	8	**	*12.5
Shreveport, La	7	9.5	8	**	*11
Lafayette, La	8.5	11	8	**	*12.5
Bristol, Tenn	10.5	11.75	8	**	14.5
Chattanooga, Tenn	10	12.5	8	**	13.5
Knoxville, Tenn	10.5	13	8	**	14
Memphis, Tenn	8.5	11	8	**	12
Nashville, Tenn	9.5	12	8	**	13

S. O. Louisiana—Cont'd

*New Orleans gasoline tax includes 7c state, 1c federal, and 2c parish tax. Louisiana kerosine prices include 1c state tax; in addition New Orleans has 1c parish tax.

*S. O. Louisiana transferred stations to dealers: no prices available.

Price basis to dealers: Undivided dealers get dealer price, less 0.5c.

Price basis to commercial consumers: Effective Dec. 21, 1936, thru territory: commercial consumers taking 50 gals. or more at one time by tank wagon, billed at price equivalent to 2c per gal. over posted consumer tank car price in effect at time and place of delivery; those taking less than 50 gals. at one time will be billed at a price equal to 6c per gal. over posted consumer t.c. price.

Humble Oil & Refining Co.

HUMBLE MOTOR FUEL

	*100% Dlr. T.W.	Total Taxes	*100% Dlr. T.W.	S.S.	Kerosine T.W.
Dallas, Tex	8.5	5	13.5	17	8.5
Ft. Worth, Tex	8.5	5	13.5	17	8.5
Houston, Tex	9	5	14	18	8.5
San Antonio, Tex	9	5	14	18	8.5

U. S. MOTOR FUEL

(Third Grade)

Dallas, Tex	7	5	12	14
Ft. Worth, Tex	7	5	12	14
Houston, Tex	8	5	13	16
San Antonio, Tex	8	5	13	16

*Price is t.w. price to contract dealers and commercial consumers. Price to open dealers is 0.5c above t.w. prices shown above.

Price basis to dealers: to contract dealers consumer accounts off posted retail price: when posted retail price, including all taxes on Esso motor fuel is: 19.1c per gal. and above discount is 4c; 19c to 18.1c, 3.5c, and 18c and below, 3c. Humble motor fuel, 17.1c and above, 4c; 17 to 16.1c, 3.5c; and 16c and below, 3c; U. S. motor fuel, 15.1c and above, 3c; 15 to 14.1c, 2.5c; and 14c and below, 2c. To "open" dealer accounts, discounts in each case are 0.5c less on the same price basis.

Continental Oil

	Dealer Prices Conoco Bronze Ex-Tax	All Tax	Total Conoco Bronze	De-mand	Kerosine T.W.
Denver, Colo	12.5	5	17.5	16.5	11
Grand Junc., Colo	15	5	20	19	15
Pueblo, Colo	10.5	5	15.5	14.5	10
Casper, Wyo	13	5	18	17	11.5
Cheyenne, Wyo	13	5	18	17	13
Billings, Mont	15.5	6	21.5	20.5	14.5
Butte, Mont	13.5	6	19.5	17.5	14.5
Great Falls, Mont	15.5	6	21.5	20.5	14.5
Helena, Mont	15.5	6	21.5	20.5	14.5
Salt Lake City, Utah	14.5	5	19.5	16.5	16
Boise, Ida	15	6	21	20	18
Twin Falls, Ida	15.5	6	21.5	20.5	18
Albuquerque, N. M	11	†6.5	17.5	16.5	12
Roswell, N. M	12	†6.5	18.5	15	10
Santa Fe, N. M	13	*7	20	16.5	12
Muskogee, Okla	10.5	5	15.5	14.5	8
Oklahoma City, Okla	9	5	14	12	8
Tulsa, Okla	10.5	5	15.5	13.5	8
Ft. Smith, Ark	10	5	15	14	10
Little Rock, Ark	10	7.5	17.5	15.5	9.5
Texarkana, Ark	10	5	15	13	9

†Includes city tax of 0.5c.
*Includes 1c city tax.

S. O. California

STANDARD GASOLINE

	T.W.	Total Taxes	T.W.	S.S.	Kerosine T.W.
San Francisco, Cal	13	4	17	18	11.5
Los Angeles, Cal	12.5	4	16.5	17.5	9
Fresno, Cal	14	4	18	19	12
Phoenix, Ariz	14.5	6	20.5	21.5	†16
Reno, Nev	14.5	5	19.5	20.5	13
Portland, Ore	13.5	6	19.5	20.5	13.5
Seattle, Wash	13.5	6	19.5	20.5	13.5
Spokane, Wash	16.5	6	22.5	23.5	16.5
Tacoma, Wash	13.5	6	19.5	20.5	13.5

FLIGHT GASOLINE

(Third Grade)

San Francisco, Cal	11.5	4	15.5	16.5	....
Los Angeles, Cal	11	4	15	16	....
Fresno, Cal	12.5	4	16.5	17.5	....
Reno, Nev	13	5	18	19	....
Phoenix, Ariz	13	6	19	20	....
Portland, Ore	12	6	18	19	....
Seattle, Wash	12	6	18	19	....
Spokane, Wash	15	6	21	22	....
Tacoma, Wash	12	6	18	19	....

S. O. California—Cont'd

†Includes 5c state tax.

Discount to dealers: on gasoline, off t.w. price on Standard Ethyl and Standard Gasoline, to 100% dealers, 3c; to split dealers, 2c; on Flight gasoline, both 100% and split dealers, 2c.

On Stanavo Aviation Gasoline, to all classes of dealers, 3c off t.w.

To commercial consumers: off tank wagon price: on single deliveries of 40 gallons and over, Stanavo Aviation, Standard Ethyl and Standard Gasolines, 3c. Flight Gasoline, 2c per gallon. Tank wagon delivery, less than 40 gals., 1c per gal. above posted t.w. price.

On kerosine in tank car, transport truck and trailer delivery, 3c off t.w. price; plant deliveries to jobbers, 2.5c below t.w.

Canada

PRICES OF IMPERIAL OIL LTD.

Per Imperial Gallon, which is 1.2 U. S. Gallons

3-STAR IMPERIAL GASOLINE

	T.W.	Total Taxes	T.W.	S.S.	Kerosine T.W.
Hamilton, Ont	16	6	22	*	17
Toronto, Ont	16	6	22	24.5	17
Brandon, Man	22.8	7	29.8	32.8	22.3
Winnipeg, Man	21.2	7	28.2	31.2	20.7
Regina, Sask	22.5	7	29.5	*	22
Saskatoon, Sask	25.3	7	32.3	*	24.8
Edmonton, Alta	23.5	7	30.5	33.5	24.2
Calgary, Alta	21	7	28	31	21.5
Vancouver, B. C	15	7	22	26	23
Montreal, Que	13	6	19	*	17.5
St. John, N. B	16	8	24	28	18.5
Halifax, N. S	16	8	24	28	18.5

*Imperial Oil Ltd. transferred stations to dealers; no prices available.

Discounts to Divided Dealers: *off s.s. prices*: Maritime Provinces, 4c; Ontario, 2½c; Prairie Provinces and British Columbia, 3c, except Vancouver and Victoria, 4c; Quebec, divided dealers pay posted t.w. price. *To Undivided Dealers*: additional 1c discount throughout territory, except in Maritime Provinces.

Aviation Gasoline

Following are tank car and/or tank wagon prices of aviation gasoline in principal marketing territories (Stanavo aviation in all territories except Continental Oil.) Tax column includes 1c federal tax, and state tax; also municipal taxes as indicated in footnotes.

In Effect Feb. 22, 1937

S. O. NEW JERSEY

	Tank Car	T.W.
Bayonne, N. J	9.5	12
Baltimore, Md	10	12
Washington, D. C		12.6
Richmond, Va		14.2
Greensboro, N. C		14.7
Raleigh, N. C		16.6
Charleston, W. Va		14.2

COLONIAL BEACON OIL CO.

	T.W.
Brooklyn, N. J	12.8
Buffalo, N. Y	14.1
Boston, Mass	14.5

S. O. PENNSYLVANIA

Philadelphia, Pa	12.3
Pittsburgh, Pa	12.6

S. O. LOUISIANA

New Orleans, La	12.8
Shreveport, La	13.1

Prices in above four territories do not include state or federal taxes. They are for 74 octane grade aviation gasoline. An 80 octane product generally brings 0.5c premium and an 87 octane product, 1.5c premium over the 74 octane grade.

Note: S.s. prices in above four territories are generally 6c over t.w. prices. Above t.w. prices are net, with no discounts allowed for quantity purchases. T.w. prices are generally tank car price, plus freight, plus 2.5c per gal.

S. O. OHIO

Thru Ohio

	Consumer T.W.	Tax	Total Consumer T.W.
Stanavo Ethyl Aviation:			
73 octane	15.5	5	20.5
80 octane	16.5	5	21.5
87 octane	17.5	5	22.5

Discounts: For delivery on contract to hangar operators and resellers: 2c below commercial consumer posted t.w. price, shown above.

TANK WAGON, SERVICE STATION MARKETS

Tax column includes 1c federal tax, state gasoline tax, also city and county taxes as indicated in footnotes, and inspection fees, as shown in general footnote. These prices in effect Feb. 22, 1937 as posted by principal marketing companies at their headquarters offices, but subject to later corrections

S. O. INDIANA

Chicago, Ill.	15	4	19
Detroit, Mich.	16.2	4	20.2
Milwaukee, Wisc.	15.3	5	20.3
Minneapolis, Minn.	15.4	4	19.4
St. Louis, Mo.	14.7	*4	18.7
Kansas City, Mo.	14.4	*4	18.4
Fargo, N. D.	16.4	4	20.4
Huron, S. D.	15.8	5	20.8

*Includes 1c city tax.
**Includes 0.1c to cover sales tax.

HUMBLE OIL & REFINING CO.

	Tank Car
Baytown, Tex. (exclusive of taxes)	8.5

CONTINENTAL OIL CO.

	Dealer	Tax	Total Dealer
Denver, Colo.	15	5	20
Cheyenne, Wyo.	15.5	5	20.5
Helena, Mont.	18	6	24
Salt Lake City, Utah	17	5	22
Albuquerque, N. M.	13.5	*6.5	20

*Includes city tax of 0.5c.

S. O. CALIFORNIA

Phoenix, Ariz.	16.5	6	22.5
Los Angeles, Cal.	14.5	4	18.5
San Francisco, Cal.	15	4	19
Reno, Nev.	16.5	5	21.5
Portland, Ore.	15.5	6	21.5
Seattle, Wash.	15.5	6	21.5
Spokane, Wash.	18.5	6	24.5

Note: For discounts, etc., see note under Standard and Flight gasoline above.

Naphtha (In Tank Wagon)

In Effect Feb. 22, 1937

(Net price in Tank Wagon; in Cents per Gallon)

***S. O. NEW JERSEY**

	Mineral Spirits	V.M.&P. Naphtha
Baltimore, Md.	14	15.5
Newark, N. J.	12.5	14.5
Washington, D. C.	14	**17.5

*2c off t.w. prices to large buyers in some instances.
**Steel bbls. only.

SOCONY-VACUUM OIL CO.

Buffalo, N. Y.	*15	15
New York City	10.5	11.5
Rochester, N. Y.	†16	....
Syracuse, N. Y.	**16	....
Boston, Mass.	13	13.5
Bridgeport, Conn.	13	13.5
Providence, R. I.	13	14

*2c off for 50 gals. or more purchase; 3.5c off for 4,000 gals. or more.
†4c off for purchase of 150 gals. or more
**Less 2c for 150 gals. or more

ATLANTIC REFINING CO.

Philadelphia, Pa.	11.5	12.5
Lancaster, Pa.	13	14
Pittsburgh, Pa.	12.5	14.5

Note: Prices for Mineral Spirits also apply to Stoddard Solvent; and prices for V.M.&P. Naphtha apply also to Light Cleaners Naphtha

S. O. OHIO

	S.R. Solvent	V.M.&P. Naphtha
Thru Ohio	13.25	13.75

Note: V.M.&P. Naphtha prices also apply on Dry Cleaners naphtha and special Varnolene; Varnolene and Sohio Solvent 0.5c below these prices. Discounts to contract consumers, off t.w. price: 300 to 999 gals., 0.5c; 1,000 to 2,499 gals., 0.75c; 2,500 to 4,999 gals., 1c; 5,000 or more gals., 1.5c

S. O. INDIANA

	Oleum Spirits	V.M.&P. Naphtha	Stanisol
Chicago, Ill.	16.8	17.1	15.6
Detroit, Mich.	18.2	19.3	18.3
Kansas City, Mo.	13.9	14.9	13.9
St. Louis, Mo.	14.2	15.2	13.6
Milwaukee, Wis.	18.8	19.8	18.8
Minneapolis, Minn.	17.9	18.9	16

Note: Prices for V. M. & P. apply also to Light Cleaners Naphtha. All prices, with exception of Missouri points, include state tax. Prices shown are base prices, before discounts.

Naphtha (In Tank Cars)

In Tank Cars (F. o. b. refinery or seaboard terminal except Ohio, delivered price.)

	V.M.&P. Naphtha	Solvent
Baltimore	10.50	10
New York Harbor	10	9
Philadelphia district	10	9.5
Providence	10	9.5
Ohio points, delivered	9.25	*8.75

*This is on S.R. solvent.
Note: In Ohio, prices on D.C. naphtha and special Varnolene are same as V.M.&P.; on Varnolene and Sohio Solvent, prices are 0.5c less than on V.M.&P.

Latest Changes

From Feb. 16 to Feb. 22 inclusive. Dates and amounts of changes shown. See table for full current prices. Changes are on gasoline unless kerosine is indicated.

S. O. Indiana—Red Crown and Stanolind, Aviation and Naphtha:

Up 0.3c thru territory, Feb. 17. Only exception to general advance was lower peninsula of Michigan unchanged. Advance of 0.3c in this area was Feb. 2.

Kerosine:

Will advance normal and subnormal t. w. prices 0.3c, thru territory, Feb. 23. These prices not reflected in table as prices shown are effective of Feb. 22.

S. O. Nebraska—Standard Red Crown:

Thru territory, up 0.3c, Feb. 17.

Continental Oil—Conoco Bronze and Demand:

Thru Oklahoma, up 0.5c, Feb. 18; except Oklahoma City remained unchanged.

Thru territory up 0.5c, Feb. 22; exceptions are Butte, Mont., Oklahoma and Arkansas remained unchanged.

Corrections

Notation of amount of change and dates not previously shown in table. Table in this issue is corrected to show these changes. Changes are on gasoline unless kerosine is indicated.

S. O. New Jersey—Essolene:

Cumberland, consumer t. c. and dealer t. w. cut 0.2c, Feb. 13.

Atlantic City, dealer t. w. price should have been 9c, and Newark, dealer t. w. 8.5c, instead of prices published in table on page 32, February 17 issue.

Socony-Vacuum—Kerosine:

Boston, up 0.25c, Jan. 8; cut 0.25c, Feb. 12.

S. O. Nebraska—Standard Red Crown:

McCook, dealer price cut 2.3c, Jan. 26.

S. O. Louisiana—Kerosine:

New Orleans, cut 2c, Feb. 12.

Continental Oil—Conoco Bronze and Demand:

Texarkana, demand up 1c, Feb. 12.

Oklahoma City, Bronze cut 1c, Demand cut 2c, Feb. 15.

Fuel Oil

(*Continued from page* 34)

because he could make shipment immediately.

Offerings of No. 6 fuel at $0.825 were limited and sellers asked up to $0.875 per barrel last week.

Some grades of light fuels, notably straw color No. 1, and Nos. 2 and 3 oils were easier than they have been for some time. However, no price shading was reported on these grades.

Continued mild weather has worked against consumption of domestic heating fuel, jobbers reported.

Will Process Residue Gas

N. P. N. News Bureau

TULSA, Feb. 22.—The Columbian Carbon Co. will build a plant in Moore county, Texas Panhandle, to utilize the residue gas from the partnership natural gasoline plant to be constructed by Shell Petroleum Corp. and Sinclair Prairie Oil Co.

The Shell and Sinclair Prairie companies plan to develop their Moore county properties as a partnership. The gasoline plant will be built in Block 3T of T. and N. O. Survey. It will be designed to handle approximately 65,000,000 cu. ft. of gas daily, manufacturing approximately 20,000 gallons of gasoline. The Shell interests will drill the wells and the Sinclair interests will operate the plant.

Standard of Kansas

HOUSTON, Feb. 22.—Standard Oil Co. of Kansas and its subsidiary Coastal Plains Oil Corp. report net income of $257,081 for the year ended Dec. 31, 1936. This is equal to $1.90 a share on 134,841 shares (par $10) of capital stock outstanding, excluding 65,159 shares held in the treasury.

In the previous year the company reported net income of $131,748, or 90 cents a share, on 145,441 shares then outstanding.

Current assets of the company at the end of 1936 were $459,006, while current liabilities were $382,944. At the end of 1935 current assets were $204,886, compared with current liabilities of $432,499.

Indiana Pipe Line

Indiana Pipe Line Co. reports net income of $301,143, after all charges, for the year ended Dec. 31, 1936. This is equal to approximately $1 a share on 300,000 shares (par $10) of capital stock outstanding. This compares with net income of $167,187 or 56 cents a share in the preceding year.

Dividend payments totaled $240,000 during the year, leaving $61,143 to be added to surplus.

SEABOARD MARKETS, EXPORT AND COASTWISE

Prices do not include Federal tax. Where $ mark is shown, prices are per barrel of 42 U. S. gallons

Eastern Domestic

(Prices in cents per gallon tank car lots, unless otherwise noted, f.o.b. refinery or seaboard terminal, representing majority of quotations or sales. Inter-refinery and export prices not included. Florida and S. Carolina inspection tax not included)

***MOTOR GASOLINE**

Prices Feb. 22	†60-64 Octane	†65 Octane and Above
New York harbor	6.75 – 7.00	7.00 – 7.25
New York harbor, barges	6.50 – 6.75	6.75 – 7.00
Philadelphia district	6.50 – 7.00	6.75 – 7.25
Baltimore district	7.00	7.25
Norfolk district	7.00	7.50
Wilmington, N. C. district	7.25	7.50
Charleston, S. C. district	7.25	7.50
Savannah district	7.25	7.50
Jacksonville district	7.25	7.50
Portland district	7.25	7.50
Boston district	7.00	7.25
Boston district, barges	6.75	7.00
Providence district	7.00	7.25
Providence district, barges	6.75	7.00

*Due to lack of companies offering U. S. Motor gasoline, 59 octane and below in the open market, prices for this grade are discontinued. Quotations nominally are 0.25c below those for 60-64 octane grade.

†Nominal.

†WATER WHITE KEROSINE

Prices Feb. 22

New York harbor	5.625	Savannah district	5.75
N. Y. harbor, barges	5.50	Jacksonville district	5.75
Philadelphia district	5.75	Portland district	6.00 – 6.25
Baltimore district	5.75	Boston district	5.25 – 5.50
Norfolk district	5.50 – 5.75	Boston dist., barges	5.25 – 5.375
Wilmington, N. C.	5.50 – 5.75	Providence district	5.50 – 5.75
Charleston, S. C. dist.	5.50 – 5.75	Providence, barges	5.375 – 5.625

***FUEL OILS**

Prices Feb. 22	New York harbor	New York harbor, barges	Philadelphia district
†No. 1	5.625	5.50	5.75
†No. 2	4.625	4.50	4.75
†No. 3	4.625	4.50	4.75
†No. 4	4.375	4.25	4.50
No. 5 (per barrel)	$1.40	.....	$1.47
No. 6 (per barrel)	$1.20	.....	$1.20

	Baltimore district	Boston district
†No. 1	5.75	5.25 – 5.50
†No. 2	4.75	4.625
†No. 3	4.75	4.625
†No. 4	4.50	4.625
No. 5 (per barrel)	$1.40	$1.50
No. 6 (per barrel)	$1.20	$1.20

	Boston dist., barges	Providence district	Providence dist., barges
†No. 1	5.25 – 5.375	5.50 – 5.75	5.375 – 5.625
†No. 2	4.50	4.75	4.625
†No. 3	4.50	4.75	4.625
†No. 4	4.50	4.25 – 4.50	4.125 – 4.375

*Fuel oils meet specifications of U. S. Commercial Standards CS12-35.

†Nominal.

	Bunker Oil Grade C Per Barrel	Diesel Oil Ships' Bunkers Per Barrel	Gas Oil 28-34 Gravity Per gallon	Diesel Oil Shore Plants Per gallon
New York harbor	*$1.20	*$1.85	4.75	4.75
Philadelphia dist.	*$1.20	*$1.85-$2.00	4.75	....
Baltimore district	*$1.20	*$1.85	4.75	....
Norfolk district	*$1.20	*$1.995	4.75	....
Charleston district	$1.15	$1.85	....	....
Savannah district	$1.15	$1.89	....	4.75
Jacksonville dist.	$1.15	$1.995	....	4.75
Tampa district	$1.15	$1.995	....	....
Portland district	$1.30	$1.95	....	....
Boston district	$1.20	*$1.85	....	....
Providence district	$1.20	$1.85	....	....

*Lighterage for bunker oil, 5c per bbl. additional; or Diesel oil, 6.5c per bb. additional.

Pacific Export

(Quotations are at seaboard, Los Angeles, in cargo lots, cents per gallon, except where otherwise noted.)

Prices—	Feb. 22	Feb. 15	Feb. 8
53-55 U. S. Motor	5.00 – 5.50	5.00 – 5.50	5.00 – 5.50
400 e.p. blend 65 Octane and above	5.25 – 6.00	5.25 – 6.00	5.25 – 6.00
38-40 w.w. kerosine, 150 fire point	4.50 – 5.00	4.50 – 5.00	4.50 – 5.00
41-43 w.w. kerosine	4.75 – 5.00	4.75 – 5.00	4.75 – 5.00
44 water white kerosine	5.00	5.00	5.00
Prime white kerosine	4.00 – 4.50	4.25 – 4.50	4.25 – 4.50
In Cargo lots, per barrel			
Diesel fuel oil, above 23.9°.	$1.16 – $1.26	$1.16 – $1.26	$1.16 – $1.26
Diesel fuel oil, under 23.9°.	$1.06 – $1.10	$1.06 – $1.10	$1.06 – $1.10
30-34 gas oil	$1.30 – $1.35	$1.30 – $1.35	$1.30 – $1.35
Grade C fuel oil	$0.85 – $0.95	$0.85 – $0.95	$0.85 – $0.90

Pacific Export (cont'd)	Feb. 22	Feb. 15	Feb. 8
In Ships' Bunkers, or deep tank lots, per barrel:			
Diesel fuel oil, above 23.9 gravity	$1.25 – $1.35	$1.25 – $1.35	$1.25 – $1.35
Diesel, under 23.9 gravity	$1.20 – $1.25	$1.20 – $1.30	$1.20 – $1.30
Grade C fuel oil	$0.90 – $0.95	$0.90 – $1.00	$0.90 – $1.00
Cased Goods:			
Gasoline, U. S. Motor	$1.35 – $1.50	$1.35 – $1.50	$1.35 – $1.50
Gasoline, 400 e.p. blend	$1.45 – $1.65	$1.45 – $1.65	$1.45 – $1.65
38-40 w.w. kerosine, 150 fire point	$1.20 – $1.35	$1.20 – $1.35	$1.20 – $1.35
Kerosine, prime white	$1.15 – $1.25	$1.15 – $1.25	$1.15 – $1.25

New York Export

(Prices in cents per gallon in barrels, F.a.s. New York)

CYLINDER OILS (Pennsylvania Products)

Bright stock:			
Light, 25 pour test	29.50 – 30.00	29.50 – 30.00	29.50
Dark, 25 pour test	29.00 – 29.50	29.00 – 29.50	29.00
Neutral oil:			
200 3 color, 25 pour test	30.00	30.00	30.00
150 3 color, 25 pour test	26.50	26.50	26.50
600 Warren E filtered	24.50	24.50	24.00
600 stm. rfd., unfiltered	22.00	22.00	21.50
650 stm. rfd., unfiltered	23.50	23.50	23.00
600 flash, steam refined	24.50	24.50	24.00
630 flash, steam refined	25.50	25.50	25.00

Wax Domestic *and* Export

(Prices in cents per pound. Tests made by A. S. T. M. methods. Melting points shown below, however, are A. M. P., 3° higher than A. S. T. M. (E. M. P.) melting points. Export prices are f.a.s. carload lots. Domestic prices are f.o.b. refineries in New York and New Orleans districts, in bags, carload lots, with 0.2c discount allowed for shipment in bulk. Scale solid and fully refined slabs in bags.)

	New York		New Orleans	
Prices Feb. 22	Domestic	Export	Domestic	Export
124-6 Y.C. scale	2.60	2.60	†2.65	†2.65
122-4 W.C. scale	2.65	2.65	†2.70	†2.70
124-6 W.C. scale	2.65	2.65	†2.70	†2.70
123-5 Fully refined	4.45	4.125	4.45	4.125
125-7 Fully refined	4.55	4.25	4.55	4.25
128-30 Fully refined	4.80	4.50	4.80	4.50
130-2 Fully refined	5.05	4.75	5.05	4.75
133-5 Fully refined	*5.35	5.25	*5.35	5.25
135-7 Fully refined	*5.60	5.50	....	....

*Shipment either in bags or in bulk.

†Nominal.

Gulf Coast

(Prices are f.o.b. ship at Gulf oil terminals representing opinions of majority of traders, except prices specified to the contrary. Prices cover bulk shipments of 20,000 barrels or more, unless otherwise noted.)

MOTOR GASOLINE

For Domestic Shipment

Prices—	Feb. 22	Feb. 15	Feb. 8
59 octane and below	5.75	5.75	5.625 – 5.75
60-64 octane number	5.875 – 6.00	5.875 – 6.00	5.75 – 5.875
65 octane and above	6.125 – 6.25	6.125 – 6.25	6.00 – 6.125

FUEL OILS

No. 1 Fuel oil	5.125 – 5.25	5.25	5.25
No. 2 Fuel oil	4.00	4.00	4.00 – 4.125
No. 4 Fuel oil	3.75	3.75	3.75

KEROSINE

41-43 w.w.	5.125 – 5.25	5.25	5.25

GASOLINE

For Export Shipment

U. S. Motor gasoline	5.625 – 5.75	5.625 – 5.75	5.625 – 5.75
60-62, 400 e.p. gasoline	5.75 – 5.875	5.75 – 5.875	5.75 – 5.875
61-63, 390 e.p. gasoline	5.875 – 6.00	5.875 – 6.00	5.875 – 6.00
64-66, 375 e.p. gasoline	6.00	6.00	6.00

KEROSINE

44 water white	5.375	5.375	5.25 – 5.375
41-43 water white	5.125 – 5.25	5.25	5.25 – 5.375
41-43 prime white	5.00 – 5.125	5.00 – 5.125	5.00 – 5.125

*Nominal.

(Continued on next page)

SEABOARD MARKETS, EXPORT AND COASTWISE

Prices do not include Federal tax. Where $ mark is shown, prices are per barrel of 42 U. S. gallons

(Continued from preceding page)

GAS AND BUNKER OILS

Prices—	Feb. 22	Feb. 15	Feb. 8
For Domestic and/or Export Shipment			
*26-30 translucent gas oil	3.75 – 3.875	3.75 – 3.875	3.75 – 3.875
*30 plus translucent gas oil	4.00	4.00	**4.00
*30 plus transp. gas oil	4.00	4.00	4.00 – 4.125
Diesel Oil Ships' bunkers	$1.65	$1.65	$1.65
Grade C bunker oil, for ship's bunkers, per bbl.	†$1.00	†$1.00	†$1.00
Grade C bunker oil, per bbl. in cargoes	$0.95	$0.95	$0.95

*Less than ½ of 1% sulphur. †Lighterage 5c per bbl. additional.
**Represents sale.

MEXICAN CRUDE AND BUNKER OILS

(F.o.b. Steamer, Tampico)

Heavy Panuco crude, taxes to be paid, per bbl.	$1.15 –$1.20	$1.15 –$1.20	$1.15 –$1.20
Grade C bunker oil, ship's bunkers, taxes paid, per bbl.	$1.00	$1.00	$0.95

MID-CONTINENT LUBRICATING OILS

(Prices in cents per gallon in bbls. f.a.s. Gulf oil terminals. In drums and new barrels, 0.5c to 1c higher per gal. in some instances.)

190-200 vis. D 210 bright stock	27.00	27.00	26.50
150-160 vis. D 210 bright stock:			
0-10 pour point	24.00	24.00	23.50
10-25 pour point	23.50	23.50	23.00
25-40 pour point	23.00	23.00	22.50
150-160 vis. E 210 brt. stock	23.00	23.00	22.50
120 vis. D 210 bright stock	22.50	22.50	22.00
180 vis. No. 3 color neutral Oil:			
0-10 pour point	17.00	17.00	17.00
15-30 pour point	16.50	16.50	16.50
200 vis. No. 3 color neutral Oil:			
0-10 pour point	17.50	17.50	17.50
15-30 pour point	17.00	17.00	17.00
600 s.r. olive green	12.25	12.25	12.25
600 s.r. dark green	11.00	11.00	11.00
631 s.r.	20.50	19.50	19.00

Prices—	Feb. 22	Feb. 15	Feb. 8

SOUTH TEXAS LUBRICATING OILS

(Viscosity at 100° F., pour point 0. Tanker, f.o.b. Gulf oil terminals, for export shipment)

Unfilterable Pale Oils:			
Vis. Color			
100 No. 3	5.00 – 5.25	5.00 – 5.25	5.00 – 5.25
200 No. 3	6.00 – 6.50	6.00 – 6.50	6.00 – 6.50
300 No. 3	6.50 – 7.00	6.50 – 7.00	6.50 – 7.00
500 No. 3½	7.50 – 7.875	7.50 – 7.875	7.50 – 7.875
750 No. 4	8.75 – 9.00	8.75 – 9.00	8.75 – 9.00
1200 No. 4	9.00 – 9.25	9.00 – 9.25	9.00 – 9.25
2000 No. 4	9.75 –10.00	9.75 –10.00	9.75 –10.00
Red Oils:			
Vis. Color			
100 No. 5-6	5.00 – 5.25	5.00 – 5.25	5.00 – 5.25
200 No. 5-6	5.875– 6.50	5.875– 6.50	5.875– 6.50
300 No. 5-6	6.25 – 6.75	6.25 – 6.75	6.25 – 6.75
500 No. 5-6	7.25 – 7.50	7.25 – 7.50	7.25 – 7.50
750 No. 5-6	8.75 – 9.00	8.75 – 9.00	8.75 – 9.00
1200 No. 5-6	8.75 – 9.25	8.75 – 9.25	8.75 – 9.25
2000 No. 5-6	9.75 –10.00	9.75 –10.00	9.75 –10.00

Note: Red oil prices shown above cover oils with green cast; prices for blue cast red oils are slightly lower in some cases.

Tanker Rates

(Approximate tanker freight rates to Continental ports, in shillings per ton of 2240 pounds. British sterling; to U. S. ports cents per barrel)

	Crude &/or Fuel		Refined Oil &/or Spirits	
Rates—Feb. 22	Last Paid	Owners Ask	Last Paid	Owners Ask
Calif.-U.K./Cont.*	†20/	20/-21/	28/	†28/
Gulf-U.K./Cont.*	21/	21-22c	23/6	25/-26/
Calif. N. Atlantic (not E. of N. Y.)	....	†90c	....	†90c
Gulf-N. Atlantic** (not E. of N. Y.):				
Heavy Crude & Fuel, (10 to 19.9 gravity)	42c	42c	....	....
Light Crude, (30 gravity or lighter)	38c	†38c	....	....
Gasoline	....	....	40c	40c
Kerosine	....	....	41c	41c
Light Fuel	....	....	42c	42c

Note: Dirty boat quotations are enlarged to cover, "Fuel and Light Crude" quotations.
*Continental ports in range between Bordeaux and Hamburg, both inclusive.
**Venezuela loading same rate; Tampico 2c to 3c per bbl. additional.
†Nominal.

California

(*Continued from page* 34)

and the Basin. At independent plants in these same areas, quotations ranged from $1.15 to $1.25 per barrel for similar products.

Independently produced kerosine distillate ranged from 3 to 3.5 cents a gallon in the Basin and up to 4 cents a gallon in the Valley. It was quoted at 5 cents a gallon by major companies in both areas.

Finished kerosine was quoted at 5 cents a gallon by independent refiners and at from 5.5 to 6 cents by major companies.

Coastal

Gas Oil Active

N. P. N. News Bureau
NEW YORK, Feb. 22

● Numerous inquiries for gas oil for export and one or two for gasoline were outstanding features of Gulf Coast markets the third week of February.

Inquiries for gas oil were reported received for shipment to France, Germany and one cargo to Greece. Despite the numerous inquiries, however, no open market cargo sales were reported. Several suppliers said they had received firm offers of 3.875 cents, f.o.b. the Gulf, for 30 plus translucent and transparent gas oils from European buyers but were holding for 4 cents.

One refiner said he had practically closed a sale of gas oil at 4 cents as the week ended. Suppliers reported that probably six to eight cargoes of export gas oil have been sold the past three weeks for shipment during April or May. Details were not available as to prices, but some were understood to have been sold on a sliding scale basis.

No great amount of activity was reported in domestic cargo markets for gas and light fuel oils. Reports generally indicated that no No. 2 oil was available at under 4 cents and that suppliers were not pushing very hard for business in view of export demand.

No changes were noted in cargo gasoline prices, either for domestic or export shipment. Motor gasoline, 65 octane and above, still was quoted at 6.125 to 6.25 cents. The 64-66, 375 e.p. gasoline was offered at 6 cents, f.o.b. the Gulf, for export lifting.

Bunker oil continued hard to obtain, but eastern buyers indicated that boat charter rates still were too high to make it profitable to buy cargoes in the open market at the Gulf for resale along the Atlantic seaboard.

Wax

Scale Steady

NEW YORK, Feb. 22.—Crude scale wax markets were firm the past week, according to most traders, although one or two indicated that occasional lower-priced offerings were available at New York. Reports from most quarters, however, were that little surplus scale wax was available.

Demand remained fairly steady, from both export and domestic buyers, traders generally said. Sales were reported mostly at 2.65 cents a pound at New York for 124-126 white scale. Scale continued particularly hard to obtain for open market shipment at New Orleans and prices there were higher than at New York, some traders reported.

Fully refined wax was firm and prices were steady.

CRUDE OIL MARKETS

Prices in $ per bbl. of 42 U. S. gals. at the well. A. P. I. gravity. Prices are effective as of 7 a. m. of dates as given

EASTERN FIELDS

Posted by Joseph Seep Purchasing Agency

(Effective Dec. 28, 1936, except Corning Jan. 29, 1937)

Penna. Grade Oil in Southwest Penna. Pipe Lines.....$2.32
Penna. Grade Oil in Eureka Pipe Lines (West Virginia).....$2.27
Penna. Grade Oil in Buckeye Pipe Lines (Mackaburg, O.).....$2.12
Corning Oil in Buckeye Pipe Lines (Ohio)...$1.42

Posted by Other Companies

Tide Water Pipe Co., Ltd.
Bradford-Allegany district (Penna. and N. Y.) (Effective Dec. 28, 1936).....$2.57
*The Pennzoil Co.: (Effective Dec. 28, 1936)
Penna. Grade Oil in National Transit Lines*$2.57
Ashland Oil & Transportation Co.:
Somerset Oil in Ashland Lines (Ky.): (Effective Jan. 28, 1937)
Big Sandy River.....$1.42
Kentucky River.....$1.50

*The Pennzoil Co. posts $2.57 in Cochran, Franklin, Hamilton and Doolittle, Pa. fields; prices in other lower districts range down to $2.52 per bbl. at well.

MICHIGAN

Posted by Pure Oil Co.

Midland, Midland County (Jan. 29, 1937)...$1.42

Posted by Simrall Pipe Line Corp.

(Effective Jan. 29, 1937)

West Branch, Arenac, and equal grades.....$1.26
Beaverton, Crystal, Greendale, Porter and equal grades.....$1.42

CENTRAL STATES FIELDS

Posted by Ohio Oil Co.

(Effective Jan. 28, 1937)

Illinois, Princeton.....$1.35
Lima.....$1.25
Owensboro (Western Ky.).....$1.40

Posted by Stoll Oil Refining Co.

(Effective Jan. 9, 1936)

Stoll Pipe Line Oil (Ky.).....$1.28

CANADIAN FIELDS

Posted by Imperial Oil Limited

Western Ontario

(Effective Sept. 9, 1933)

Petrolia.....$2.10
Oil Springs.....$2.17

Alberta—Turner Valley

(Prices f.o.b. field tankage)

(Effective Dec. 16, 1936)

Clear Naphtha.....$2.60

Crude Oil & Discolored Naphtha

40-40.9°	$1.55	53-53.9	$1.94
41-41.9	1.58	54-54.9	1.97
42-42.9	1.61	55-55.9	2.00
43-43.9	1.64	56-56.9	2.03
44-44.9	1.67	57-57.9	2.06
45-45.9	1.70	58-58.9	2.09
46-46.9	1.73	59-59.9	2.12
47-47.9	1.76	60-60.9	2.15
48-48.9	1.79	61-61.9	2.18
49-49.9	1.82	62-62.9	2.21
50-50.9	1.85	63-63.9	2.24
51-51.9	1.88	64-64.9	2.27
52-52.9	1.91	65° & higher, for discolored naphtha only	2.36

Note: Clear naphtha: 22 color; 10 lbs. vapor pressure, Reid method; 90% recovery; end point, 410°. Discolored naphtha: same specifications as for clear naphtha except color.

MID-CONTINENT

Posted by Stanolind Crude Oil Purchasing Co., Jan. 28, 1937

	(In Oklahoma-Kansas)	(In North-North Central Texas)
Below 29	$1.06	$0.96
29-29.9	1.08	0.98
30-30.9	1.10	1.00
31-31.9	1.12	1.02
32-32.9	1.14	1.04
33-33.9	1.16	1.06
34-34.9	1.18	1.08
35-35.9	1.20	1.10
36-36.9	1.22	1.12
37-37.9	1.24	1.14
38-38.9	1.26	1.16
39-39.9	1.28	1.18
40 & above	1.30	1.20

Above Stanolind prices met as follows:

Jan. 28, Continental Oil Co. met in Okla., Kans. and North Texas. Sinclair-Prairie met in North Texas and North Central Texas. Jan. 28, Stanolind's North Texas schedule. Same date, The Texas Co. met in North-North Central Texas.

Note: Stanolind prices in Okla.-Kans. are for quantities computed by 97% tank tables. In Texas, 99% tank tables are used, volume corrected to 60° F., and deduction for full b.s. & w. content.

Posted by Carter Oil Co.

In Oklahoma

(Effective Jan. 28, 1937)

Below 25	$0.98	33-33.9	$1.16
25-25.9	1.00	34-34.9	1.18
26-26.9	1.02	35-35.9	1.20
27-27.9	1.04	36-36.9	1.22
28-28.9	1.06	37-37.9	1.24
29-29.9	1.08	38-38.9	1.26
30-30.9	1.10	39-39.9	1.28
31-31.9	1.12	40 and above	1.30
32-32.9	1.14		

Above Carter schedule met Jan. 28 by the following companies: Sinclair-Prairie, Shell and Barnsdall in Oklahoma-Kansas; Skelly Oil in Kansas; Tide Water in Oklahoma; Pure Oil in Oklahoma-Kansas, beginning with below 24 at $0.98 and ending with 40 & above at $1.30.

Posted by Magnolia Petroleum Co.

(Effective Jan. 28, 1937)

In Oklahoma, same schedule as Carter Oil, which see above, beginning with below 25, at $0.98 and ending with 40 & above, at $1.30.

In Texas: North and North Central, including Burkburnett, Archer, Henrietta, Electra, Comanche and Olden, same gravity and price schedule as Stanolind in North Texas, which see under Stanolind, beginning with below 29 at $0.96 and ending with 40 and above, at $1.20.

Posted by Humble Oil & Refining Co.

TEXAS FIELDS

(*West Central Texas)

(Effective Jan. 28, 1937)

Below 29	$0.96	35-35.9	$1.10
29-29.9	0.98	36-36.9	1.12
30-30.9	1.00	37-37.9	1.14
31-31.9	1.02	38-38.9	1.16
32-32.9	1.04	39-39.9	1.18
33-33.9	1.06	40 and above	1.20
34-34.9	1.08		

*Includes Brown, Callahan, Coleman, Comanche-Eastland, Fisher, Haskell, Jones, Shackelford, Stephens, Throckmorton and Young counties.

Shell Petroleum Corp., effective Jan. 28, posts Humble's above schedule on Fisher county crude, plus these five lower grades, beginning with below 25 gravity at $0.88; 25-25.9, $0.90; 26-26.9, $0.92; 27-27.9, $0.94, and 28-28.9, $0.96; rest of schedule same as Humble's in West Central Texas.

†Effective Dec. 1, 1934, Humble prices are based on 99% tank tables at 60F. Allowance or deduction of 1% is made for each 25° change in temperature above or below 60F.

*East Central Texas

(Effective Jan. 28, 1937)

Below 29	$1.03	35-35.9	$1.17
29-29.9	1.05	36-36.9	1.19
30-30.9	1.07	37-37.9	1.21
31-31.9	1.09	38-38.9	1.23
32-32.9	1.11	39-39.9	1.25
33-33.9	1.13	40 and above	1.27
34-34.9	1.15		

*Including Anderson, Cherokee, Limestone, Navarro counties

Same date, Sinclair-Prairie met in Mexia Humble's above schedule.

PANHANDLE TEXAS

Posted by Humble Oil & Refining Co.

(Effective Jan. 28, 1937)

	Gray County	Carson-Hutchinson
Below 35	$0.96	$0.91
35-35.9	0.98	0.93
36-36.9	1.00	0.95
37-37.9	1.02	0.97
38-38.9	1.04	0.99
39-39.9	1.06	1.01
40 & above	1.0°	1.03

Jan. 28, above prices met by Sinclair-Prairie and Magnolia in the entire area and by Continental in Carson-Hutchinson and by Texas Co. on Panhandle Sweet, same as Humble's Gray Co. and on Panhandle Sour, same as Carson-Hutchinson.

EAST TEXAS

(Effective Jan. 28, 1937)

Stanolind, Humble, Shell, Sinclair-Prairie, Texas Co., and Magnolia.....$1.27

Shell also posted on Jan. 28, in Livingston area-Polk County, Texas, $1.27.

NORTHEAST TEXAS

(Posted by Humble, Jan. 28, 1937)

Talco.....$0.73

(Posted by Magnolia Jan. 28, 1937)

Cass County and Panola County, Tex.:

Same gravity and price schedule as S. O. Louisiana posts for Rodessa, La., which see under that company.

(Posted by The Texas Co., Jan. 28, 1937)

Cass County.....$1.25

WEST TEXAS AND NEW MEXICO

Posted by Humble Oil & Refining Co.

(Effective Jan. 28, 1937)

(Including Andrews, Crane, Crockett, Ector, Glasscock, Howard, Winkler and Upton Counties, Texas and Lea county, New Mexico).

Below 26	$0.78	33-33.9	$0.94
26-26.9	0.80	34-34.9	0.96
27-27.9	0.82	35-35.9	0.98
28-28.9	0.84	36-36.9	1.00
29-29.9	0.86	37-37.9	1.02
30-30.9	0.88	38-38.9	1.04
31-31.9	0.90	39-39.9	1.06
32-32.9	0.92	40 & above	1.08
Pecos, West Texas			$0.91

Jan. 28, Magnolia met Humble in Crane, Upton, Howard, Glasscock, Mitchell and Winkler.

Shell Petroleum Corp., on Jan. 28, met Humble in Crane, Glasscock, Howard, Pecos (except Yates shallow pool), Winkler, and Upton counties, Tex., and in Lea County, N. Mex. On Jan. 28, Shell posted in Yates shallow pool in Pecos county, Tex., $0.81.

Jan. 28, Stanolind Oil & Gas Co. met Humble in Hendrick field, Winkler county.

Jan. 28, Texas Co. met Humble in Ward and Winkler counties, Tex. and Lea County, N. M.

Posted by Continental Oil Co.

(Effective Jan. 28, 1937)

Artesia, Jackson and Maljamar pools, N. M...$0.90

COLORADO

(Posted by Continental Oil Co.,

Effective Jan. 28, 1937)

Ft. Collins and Wellington

Below 29	$1.01	35-35.9	$1.15
29-29.9	1.03	36-36.9	1.17
30-30.9	1.05	37-37.9	1.19
31-31.9	1.07	38-38.9	1.21
32-32.9	1.09	39-39.9	1.23
33-33.9	1.11	40 & above	1.25
34-34.9	1.13		

Cannon City and Florence, Col.....$1.10

SOUTH AND SOUTHWEST TEXAS

Posted by Humble Oil & Refining Co.

(Effective Jan. 28, 1937)

Carroll, Clark, Darst Creek, Hilbig, Salt Flat and Zoboroski fields.....$1.09

Pettus	$1.37	Van Zandt	$1.10

(Effective Nov. 1, 1936)

Heyser heavy	$0.90	Placedo heavy	$0.90
Heyser light	1.15	Taft	0.95

Shell Pet. Corp. on Jan. 28, posted $1.09 in Salt Flat district, Tex.

Anahuac, Dickinson, Flour Bluff and Turtlebay

(Effective Jan. 28, 1937)

Below 31	$1.16	36-36.9	$1.28
31-31.9	1.18	37-37.9	1.30
32-32.9	1.20	38-38.9	1.32
33-33.9	1.22	39-39.9	1.34
34-34.9	1.24	40 and above	1.36
35-35.9	1.26		

Jan. 28, Magnolia met Humble in Darst Creek; posted $1.00 in Luling; $1.12 in Lytton Springs; $1.27 for Cleveland, Liberty county, Tex.; $1.15 in Hardin, Liberty county, Tex.

Jan. 28, 1937, The Texas Co. met Humble in Darst Creek, and posted $1.00 for Duval county, Tex.

Posted by Humble

Conroe, Raccoon Bend, Tomball and Satsuma

(Deep sand crudes)

(Effective Jan. 28, 1937)

Below 29	$1.20	35-35.9	$1.34
29-29.9	1.22	36-36.9	1.36
30-30.9	1.24	37-37.9	1.38
31-31.9	1.26	38-38.9	1.40
32-32.9	1.28	39-39.9	1.42
33-33.9	1.30	40 & above	1.44
34-34.9	1.32		

Jan. 28, Magnolia met Humble in Tomball and Texas Co. met Humble in Conroe, beginning with 35-35.9 gravity.

Posted by Humble

Mirando, Heavy and Light and Sam Fordyce

(Effective Jan. 28, 1937)

Below 21	$0.90	31-31.9	$1.18
21-21.9	0.93	32-32.9	1.20
22-22.9	0.96	33-33.9	1.22
23-23.9	0.99	34-34.9	1.24
24-24.9	1.02	35-35.9	1.26
25-25.9	1.05	36-36.9	1.28
26-26.9	1.08	37-37.9	1.30
27-27.9	1.10	38-38.9	1.32
28-28.9	1.12	39-39.9	1.34
29-29.9	1.14	40 & above	1.36
30-30.9	1.16		

Jan. 28, Magnolia met Humble in Mirando.

(Continued on next page)

CRUDE OIL MARKETS

(Continued from preceding page)

NORTH LOUISIANA-ARKANSAS

Posted by Standard Oil Co. of Louisiana

(Effective Jan. 28, 1937)

(In Caddo, Homer, Haynesville, Sabine, De Soto, Sarepta, Carterville, El Dorado, Bunkie, and Miller county).

Below 25	$0.90	33-33.9	$1.08
25-25.9	0.92	34-34.9	1.10
26-26.9	0.94	35-35.9	1.12
27-27.9	0.96	36-36.9	1.14
28-28.9	0.98	37-37.9	1.16
29-29.9	1.00	38-38.9	1.18
30-30.9	1.02	39-39.9	1.20
31-31.9	1.04	40 and above	1.22
32-32.9	1.06		

Rodessa, La.

(Effective Jan. 28, 1937)

Below 25	$0.93	33-33.9	$1.11
25-25.9	0.95	34-34.9	1.13
26-26.9	0.97	35-35.9	1.15
27-27.9	0.99	36-36.9	1.17
28-28.9	1.01	37-37.9	1.19
29-29.9	1.03	38-38.9	1.21
30-30.9	1.05	39-39.9	1.23
31-31.9	1.07	40 & above	1.25
32-32.9	1.09		

Choctaw and Darrow

Jan. 28, 1937, initial posting; same schedule as Humble posts in Mirando, Tex., which see.

Smackover, Ark. $0.90
Urania, La. (La. Oil Refg. Co., Jan. 10, '36) 0.97
Tepetate, La. (Continental Oil, Jan. 28, '37) 1.24

Jan. 28, 1937, Magnolia met S. O. La.'s No La.-Ark. gravity and price schedule in Pine Island, Haynesville, Bull Bayou and Cotton Valley, La., and in Eldorado and Rainbow districts, Ark.; and met S. O. La.'s Rodessa prices; and in Lockport, Iowa, Cameron Meadow, La., posted Humble's gravity and price schedule on Mirando.

Jan. 28, The Texas Co. met S. O. La. in N. La., except that its gravity schedule begins with below 27 at $0.94. It posted $1.37 for Garden Island, La., $1.24 for LaFitte, La. and $0.90 for Smackover.

*GULF COASTAL FIELDS

Posted by Humble Oil & Refining Co. and The Texas Co.

(Effective Jan. 28, 1937)

	Humble	Texas
Below 18	$0.95	$0.90
18-18.9	for	0.92
19-19.9	below	0.94
20-20.9	21°	0.96
21-21.9	0.98	0.98
22-22.9	1.01	1.01
23-23.9	1.04	1.04
24-24.9	1.07	1.07
25-25.9	1.10	1.10
26-26.9	1.13	1.13
27-27.9	1.15	1.15
28-28.9	1.17	1.17
29-29.9	1.19	1.19
30-30.9	1.21	1.21
31-31.9	1.23	1.23
32-32.9	1.25	1.25
33-33.9	1.27	1.27
34-34.9	1.29	1.29
35-35.9	1.31	for
36-36.9	1.33	oil
37-37.9	1.35	34°
38-38.9	1.37	and
39-39.9	1.39	above.
40 & above	1.41	.....

Effective Dec. 1, 1934, Humble prices are based on 99% tank tables at 60F. Allowance or deduction of 1% is made for each 25° change in temperature above or below 60F.

*Includes these fields: Barbers Hill, Goose Creek, Hull, Humble, Liberty, Moss Bluff, Mykawa, Orange, Pierce Junction, Plymouth, Rabbs Ridge, Raccoon Bend (shallow sand), Refugio light and heavy, Saxet, Sour Lake, Spindletop, Sugarland and West Columbia.

Jan. 28, Sinclair-Prairie met above Humble schedule in full.

ROCKY MOUNTAIN FIELDS

Posted by Stanolind Oil & Gas Co.

(Effective Jan. 28, 1937)

Salt Creek, Midway and Dutton Creek, Wyo., same schedule as Stanolind posts in Oklahoma, Kansas which see under Mid-Continent crude on previous page.

Greybull-Torchlight	$1.30
Iles, light, Col.	1.18
Iles, heavy	1.12
Hogback, N. M.	1.33
Big Muddy	1.23
Elk Basin, light	1.30
Grass Creek, light	1.30
Frannie light	0.82

(Effective Nov. 4, 1936)

Grass Creek, heavy	$0.62
Frannie heavy	0.62
Hamilton Dome, Wyo.	0.57

Pondera, Mont., (Postings discontinued July 1, 1936, but Stanolind pays price posted by Ohio Oil for Kevin-Sunburst, less 20c per bbl.)

Posted by Ohio Oil Co.

(Effective Jan. 28, 1937)

Elk Basin, Wyo.	$1.30
Grass Creek, light	1.30
Rock Creek	1.205
Lance Creek	0.97
Sunburst, Mont.	1.20

Posted by *International Refg. Co.

Cut Bank, Mont.

(Effective Jan. 28, 1937)

Below 35°	$1.34	38-38.9	$1.42
35-35.9	1.36	39-39.9	1.44
36-36.9	1.38	40 and above	1.46
37-37.9	1.40		

*Texas Co. subsidiary.

Posted by Continental Oil Co.

(Effective Jan. 28, 1937)

Cat Creek, Mont.	$1.40
Big Muddy, Wyo.	1.18
Lance Creek, Wyo.	0.97

CALIFORNIA, *Posted by Standard Oil of California*

All gravities above those quoted take highest price offered in the field. Prices effective Feb. 26, 1936, except Huntington Beach, Playa del Rey, Santa Fe Springs, Kern Front, Signal Hill (Long Beach) effective March 7, 1936, and Elk Hills, effective June 22, 1936

Gravity	Signal Hill (Long Beach)	Seal Beach	Alamitos Heights	Huntington Beach	Inglewood	Playa del Rey	Olinda Brea Canon	Athens Rosecrans	Dominguez	Torrance	Richfield	Whittier East Coyote (La Habra)	Montebello	West Coyote Hills	Santa Fe Springs	‡Newhall and others	Mountain View	Elk Hills	Buena Vista Hills **Midway-Sunset	Lakeview Area	Lost Hills	Coalinga	Wheeler Ridge
14-14.9	$0.80	0.79	0.74	0.78	0.79	0.80	0.76	....	....	0.80	0.76	0.76	0.77	0.78	....	0.70	....	0.70	0.70	0.65	0.70	0.70	....
15-15.9	.80	.79	.74	.78	.79	.80	.76	....	....	.80	.76	.76	.77	.78	....	.70	....	.70	.70	.65	.70	.70	....
16-16.9	.80	.79	.74	.78	.79	.80	.76	....	....	.80	.76	.76	.77	.78	....	.70	....	.70	.70	.65	.70	.70	....
17-17.9	.80	.79	.74	.78	.81	.80	.76	....	....	.80	.76	.76	.77	.78	....	.70	....	.70	.70	.65	.70	.70	....
18-18.9	.80	.79	.74	.78	.84	.80	.78	....	....	.82	.76	.76	.77	.78	....	.70	....	.70	.70	.65	.70	.70	....
19-19.9	.82	.79	.74	.82	.87	.84	.81	....	....	.85	.76	.78	.77	.78	....	.70	.70	.74	.74	.66	.74	.71	.70
20-20.9	.85	.79	.74	.85	.90	.88	.84	....	....	.88	.78	.82	.77	.80	....	....	.70	.78	.78	.68	.78	.72	.70
21-21.9	.88	.79	.74	.89	.93	.93	.88	....	....	.91	.80	.85	.77	.84	.78	....	.73	.82	.82	.71	.82	.74	.70
22-22.9	.92	.82	.74	.92	.96	.98	.92	....	....	.93	.84	.89	.79	.88	.78	....	.77	.87	.87	.74	.86	.78	.72
23-23.9	.95	.86	.77	.96	.99	1.02	.96	.84	.79	.96	.88	.93	.82	.92	.78	....	.80	.92	.92	.77	.90	.82	.76
24-24.9	.99	.91	.80	1.00	1.02	1.06	.99	.88	.81	.99	.91	.96	.85	.96	.82	....	.84	.97	.97	.80	.94	.86	.79
25-25.9	1.03	.95	.82	1.03	1.05	1.11	1.03	.93	.83	1.02	.95	....	.89	.99	.86	....	.88	1.01	1.01	.83	.98	.90	.83
26-26.9	1.06	1.00	.85	1.07	1.09	1.16	1.06	.98	.86	1.05	.98	....	.92	1.03	.90	....	.91	1.06	1.06	.86	1.02	....	....
27-27.9	1.10	1.05	.88	1.11	1.12	....	1.10	1.03	.88	....	1.02	....	.96	1.06	.95	....	.95	1.10	1.10	.88	1.06	....	....
28-28.9	1.14	1.10	.90	1.14	1.15	....	1.14	1.07	.90	....	1.06	....	.99	1.10	.99	....	.99	1.15	1.15	.91	1.10	....	....
29-29.9	1.17	1.15	.93	1.18	1.18		1.17	1.12	.93	....	1.09	....	1.03	1.14	1.03	....	1.02	1.20	1.20	.94	1.14	....	....
30-30.9	1.21	1.19	.95	1.22	1.21		1.21	1.17	.95	....	....	....	1.07	1.17	1.08	....	1.06	1.25	1.25	.97	1.18	....	....
31-31.9				....	1.24		1.24	1.22	.97	....	....	....	1.11	1.21	1.12	....	1.09	1.29	1.29	.99			
32-32.9	*Elwood Terrace			....	1.27		1.27	1.27	1.00	....	....	....	1.14	1.25	1.16	....	1.13	1.34	1.34	1.02	Kettleman Hills		
33-33.9	....	1.28	....	....	....		....	1.32	....	....	....	....	1.18	1.28	1.20	....	1.17	1.38	1.38	1.04	....	1.19	....
34-34.9	....	1.32	....	....	....		....	1.37	....	....	....	....	1.22	1.32	1.25	....	1.20	....	....	....	....	1.23	....
35-35.9	....	1.35	....	....	....		....	1.42	....	....	....	....	1.25	....	1.29	....	....	....	....	....	....	1.27	....
36-36.9	....	1.39	....	....	....		....	1.46	....	....	....	....	1.29	....	1.33	....	....	....	....	....	....	1.31	....
37-37.9	....	1.43	....	....	....		....	1.51	....	....	....	....	1.32	....	1.37	....	....	....	....	....	....	1.35	....
38-38.9	....	....	....	....	....		....	1.56	....	....	....	....	1.36	....	1.42	....	....	....	....	....	....	1.39	....
39-39.9	....	....	....	....	....	F.O.B. Standard Pipe Line	..	1.61	....	....	....	....	1.40	....	....	....	....	....	....	....	....	1.43	....
40-40.9	....	....	....	....	....		....	1.66	....	....	....	....	1.43	....	....	....	....	....	....	....	....	....	....

*F. o. b. ship.
‡Also McKittrick, Kern River, Kern Front and Round Mountain $0.70 thru 19.9 gravity; no higher gravity quoted. **Except Lakeview Area.

TRANSACTIONS IN OIL STOCKS ON NEW YORK STOCK EXCHANGE

1936 High	1936 Low	1937 High	1937 Low	Listed Shares	Par Value	Company	Current Dividend	Last Div. Paid	Transactions Week Ended Feb. 20, 1937 Sales Shares	High	Low	Last	Week's Change
125½	75	114	101	788,675	N.P.	Amerada Corp.	50cQ	Jan. 30, 37	2,700	110⅝	108⅞	108⅞	— ⅜
35¼	26⅝	35⅞	30⅛	2,664,901	$25	Atlantic Refining Co.	50c	Dec. 15, 36	24,800	34½	33⅝	34	0
118½	109	116½	112	148,000	$100	do pfd A	$1.00	Feb. 1, 37	400	115	115	115	— 1
28⅜	13¼	41	35⅞	390,223	$10	Barber Co., Inc.	50c	Dec. 20, 36	36,200	*41	36¾	40¾	+ 2¾
28¼	14⅛	35¼	26⅛	2,247,974	5	Barnsdall Corp.	25c	Feb. 1, 37	29,500	33⅝	31¼	32	— 1⅜
30	8¼	29¾	26	1,444,970	N.P.	Colonial Beacon Oil Co.	....	....	90	29	28	29	0
17¼	11½	17¼	15⅞	13,983,287	N.P.	Consolidated Oil Corp.	20c	Feb. 15, 36	53,800	16⅞	16¼	16¼	— ⅝
106⅛	101	105⅞	105⅞	132,771	N.P.	do pfd	$1.25	Dec. 1, 36	....	....	....	....	....
44⅞	28⅛	45⅝	42¼	4,682,662	$5	Continental Oil Co.	25c	Dec. 15, 36	16,100	45⅝	44	44¼	— ¾
13⅞	6⅜	17⅝	12½	1,098,618	25	Houston Oil Co. v.t.c.	....	....	34,900	16	15½	15¾	— ⅜
15⅛	4⅛	22¼	12¾	1,207,132	10	Indian Refining Co.	....	....	2,700	18¼	16½	17	— 1¼
51½	13	35¾	28	40,000	100	Louisiana Oil Refining Corp. pfd.	....	....	240	29¼	28½	28½	0
6¾	2¼	6¾	4¾	305,000	$1	Maracaibo Oil Exploration Co.	....	....	26,000	*6¾	6	6¼	0
30⅞	17¼	32¾	29¼	1,855,912	$10	Mid-Continent Pet. Corp.	75c	Dec. 1, 36	8,200	31⅞	30⅝	31¾	— ⅛
29⅞	16¾	29¾	26⅞	1,399,345	N.P.	Mission Corp.	45c	Dec. 18, 36	2,000	28¼	27¾	27¾	— ½
18	12⅛	19½	17⅛	6,563,377	N.P.	Ohio Oil Co.	35c	Dec. 15, 36	39,500	19¼	18¾	19	+ ¼
23½	11¾	28	22¼	1,000,000	N.P.	Pacific Western Oil Corp.	65c	Dec. 18, 36	7,600	27½	26¾	26¾	— ⅞
20⅝	12¼	17⅛	16	4,699,885	$5	Pan Amer. Pet. & Transp. Co.	60c	Dec. 21, 36	100	16	16	16	— ¾
4¼	1⅜	4½	2¾	199,370	N.P.	Panhandle Prod. & Ref'g. Co.	....	....	5,300	3¼	3	3⅛	+ ⅛
74½	18½	88¼	60	17,994	$100	do pfd	....	....	430	66⅞	62	62¾	— 3¼
18¼	12⅜	20⅝	17¼	2,153,444	5	Petroleum Corp. of America	40c	Dec. 24, 36	8,200	20¼	19½	20	— ¼
52⅜	38⅛	57½	49½	4,152,836	N.P.	Phillips Petroleum Co.	$1.00C	Dec. 1, 36	23,300	56	54	54⅜	— 2
18¼	8	19⅜	16⅜	150,000	100	Pierce Oil Corp. 8% cum. pfd.	.....	.....	6,900	19	17½	18½	+ ⅝
3⅜	1½	4	3⅛	2,500,000	N.P.	Pierce Petroleum Corp.	....	....	50,900	*4	3½	4	+ ⅜
27¾	11⅞	27⅛	24⅝	1,050,000	$5	Plymouth Oil	25c	Dec. 22, 36	8,600	26⅜	25⅝	26⅜	+ ½
24⅛	16	24⅜	19¾	3,038,370	N.P.	Pure Oil Co.	....	....	128,100	22⅝	20½	20½	— 2⅝
118	91¼	107	99	167,640	$100	do 6% pfd	$1.50	Jan. 1, 37	1,800	*107	105	106¼	+ 1¼
133¾	103	112⅜	108	130,000	100	do 8% pfd	$2.00	Jan. 1, 37	1,770	111¼	110½	111⅛	— ⅞
18¾	17	18⅛	17	927,305	10	Quaker State Oil & Refg.	20c	Dec. 15, 36	900	18	17½	18	+ ¼
44	30½	47¼	41	1,244,383	N.P.	Seaboard Oil of Del.	25c	Dec. 15, 36	4,300	43½	42	42¼	— ⅞
28¼	14¾	34¾	26⅞	13,070,625	N.P.	Shell Union Oil Corp.	25c	Dec. 15, 36	33,600	*34¾	31⅛	34½	+ 3¼
127½	102	105⅝	102¼	400,000	$100	do pfd. w.w.	$1.37½	Jan. 1, 37	2,100	104⅞	102¾	102¾	— 2¼
6¾	3½	4⅛	3½	461,000	10	Simms Petroleum Co.	**$1.00	Jan. 9, 37	1,400	4	3⅞	3⅞	0
47⅜	19½	47	42	1,008,549	15	Skelly Oil Co.	....	....	2,200	45¼	43¼	43¼	— 2¼
132	97⅝	102¼	99	120,000	100	do pfd	$1.50	Feb. 1, 37	400	102	101¾	102	— ⅛
17½	12½	19½	16¼	31,151,075	15	Socony Vacuum Oil Co.	25c	Dec. 15, 36	121,800	19⅛	18¾	18⅞	+ ⅛
47⅝	35	50	43¼	13,014,754	N.P.	S. O. California	30c	Dec. 15, 36	25,400	*50	48⅜	49¾	+ ⅜
48⅛	32¾	50	46½	15,215,677	$25	S. O. Indiana	$1.25	Dec. 15, 36	13,800	49⅜	48⅜	49	0
31	25	32	31	145,441	10	S. O. Kansas	$1.00	Dec. 26, 36	....	....	....	....	....
70⅝	51⅛	75¾	67¾	26,200,825	25	S. O. New Jersey	$1.25	Dec. 15, 36	124,100	*75¾	72⅛	74¾	+ 1⅞
91	70	77½	73	2,019,093	N.P.	Sun Oil Co.	25cQE	Dec. 15, 36	300	75	74¾	75	+ 2
125	118	125	122	100,000	$100	do pfd	$1.50Q	Dec. 1, 36	120	123	122	123	+ 4
6¾	3	7⅝	4⅝	966,979	$1	Superior Oil Corp. (Del.)	....	....	84,100	*7⅝	6⅞	7	— ⅜
55¼	28⅞	59⅜	50⅜	9,851,236	$25	The Texas Corp.	25c	Jan. 1, 37	49,800	55⅛	53½	54¼	— ⅛
15¼	7½	16⅝	13⅛	930,570	10	Texas Pacific Coal & Oil Co.	25c	Aug. 1, 36	16,600	16⅛	14⅝	14¾	— 1¼
21¾	19	21⅝	20⅛	5,873,000	$10	Tide Water Associated Oil Co.	15c	Dec. 1, 36	24,700	21⅜	20½	21	+ ⅛
106½	100⅝	108	105⅛	695,503	$100	do pfd. C. T. V.	$1.50	Jan. 2, 37	2,800	106¼	106⅛	106¼	+ ⅛
28½	20¾	28¼	25¼	4,386,070	$25	Union Oil of California	25cQ	Feb. 10, 37	24,800	27	26	26	— 1⅛
31⅝	22⅝	31½	26⅝	1,200,000	N.P.	Union Tank Car Co.	30cQ	Dec. 1, 36	2,700	30¼	29½	30¼	0
2⅞	⅞	1⅝	1⅛	759,538	N.P.	Warner Quinlan Co.	....	....	5,000	1¾	1½	1¾	+ ⅛
5¼	2¾	6¼	4½	431,443	$5	H. F. Wilcox Oil & Gas Co.	....	....	8,900	6⅛	5⅝	5⅝	— ¼

*New high. †New low. Ex-div. *Dividends of liquidation.
C Unclassified. E also 6% stock dividend.

STANDARD OIL STOCKS ON NEW YORK CURB MARKET

1936 High	1936 Low	1937 High	1937 Low	Listed Shares	Par Value	Company	Current Dividend	Last Div. Paid	Transactions Week Ended Feb. 20, 1937 Sales Shares	High	Low	Last	Week's Change
18	12¼	19	15¼	36,000	$25	Borne Scrymser Co.	75c	Oct. 15, 36	1,350	*19	16¾	18⅝	+ 1⅞
50	39¾	51	46	200,000	50	Buckeye Pipe Line Co.	$1.00	Dec. 15, 36	150	*51	50	50¼	+ 1¼
124¾	105	115	110¼	120,000	25	Chesebrough Mfg. Co.	$1.50	Dec. 21, 36	250	115	114¾	115	+ 3
39	19⅞	38	34½	6,974,356	$5	Creole Petroleum Co.	25c	Dec. 15, 36	4,800	35⅞	35	35¼	— ¼
47½	38½	47½	46½	50,000	$50	Eureka Pipe Line Co.	$1Q	Feb. 1, 37	.....	.....	.....	.....	.....
80	57	87	77½	8,985,662	N.P.	Humble Oil & Refg. Co.	50c	Dec. 26, 36	4,600	86¾	85¾	86¼	— ½
24½	19¾	22¼	21	26,965,078	N.P.	Imperial Oil Ltd.	°25cS	Dec. 1, 36	11,900	*22¼	21⅝	22⅛	+ ¼
24¾	19⅞	22	21	.....	N.P.	do registered	25cS	Dec. 1, 36	1,000	*22	21¾	22	+ ¼
9¾	5½	12½	7¾	300,000	$10	Indiana Pipe Line Co.	20c	Dec. 17, 36	2,400	*12½	10¼	12½	+ 2¼
39⅛	32⅛	36½	33¾	14,324,088	N.P.	International Pet. Co.	°75cS	June 1, 36	10,800	*36½	34½	36½	+ 1⅝
38½	33⅜	35	35	.....	....	do registered	....	....	100	35	35	35	+ 1
15⅜	9¼	11⅞	10	509,000	$12.50	National Transit Co.	35c	Dec. 15, 36	2,200	11⅜	10⅞	10⅞	— ⅜
6¼	4¼	5⅜	5⅛	100,000	5	New York Transit Co.	15c S.A.	Oct. 15, 36	400	*5⅜	5⅛	5⅛	0
9¾	4¼	9½	7½	120,000	10	Northern Pipe Line Co.	35c	Jan. 2, 37	1,200	9½	8½	8½	— 1
110⅜	104½	111½	109¾	562,122	100	Ohio Oil Co. pfd.	$1.50Q	Dec. 15, 36	400	111½	111	111½	+ ½
8¼	5½	8¾	5⅞	394,000	$1	Penn Mex Fuel Co.	50c	Dec. 21, 36	100	8	8	8	— ½
44	32½	48	44	1,142,671	10	South Penn Oil Co.	90c	Dec. 29, 36	1,600	46½	46	46	— 1
7⅛	3¼	6⅝	5	100,000	25	Southern Pipe Line Co.	10c	Sept. 1, 36	300	5¾	5¾	5¾	— ⅛
60	44	42	38	35,000	10	South West Pa. Pipe Lines	$1.00	Dec. 28, 36	50	39¾	39¾	39¾	+ ¾
23⅜	17⅛	20⅛	19⅛	2,604,801	50	S. O. Kentucky	35c	Dec. 15, 36	3,600	20	19⅝	19¾	0
14⅝	11	13½	11½	182,803	25	S. O. Nebraska	25c	Dec. 19, 36	800	*13½	13	13½	+ ½
40	21¾	42½	33¼	753,740	25	S. O. Ohio	$1.50	Dec. 21, 36	5,500	*42½	38⅜	42½	+ 4
107½	97	105¾	104¼	120,000	100	do 5% pfd	$1.25Q	Jan. 15, 37	125	104⅜	104¼	104⅜	— ⅞
13⅝	5⅛	17	13	34,158	15	Swan Finch Oil Corp.	.....	.....	100	16	16	16	0

*New high. †New low. °Imperial Oil Spec. 37½c Dec. 1, 36. International Pet. Spec. 50c June 1, 36.
x Ex dividend.

CLASSIFIED

Positions Wanted

YOUNG CERAMIC ENGINEER, also trained in Civil and Mechanical Engineering, Chemistry, Mathematics and Geology, desires opening in oil refining industry. Now employed as manager of an oil retailing company and can furnish excellent recommendations. No Experience. Address Box 405.

OPPORTUNITY WANTED by university graduate, 31, married. Experienced in advertising and merchandising petroleum products. Wholesale, retail selling experience including management of stations. Previously employed by major. Now employed by independent as assistant to manager. Desire change offering future and responsibility. Address Box 399.

Situations Open

WANTED: EXPERIENCED DUBBS OPERATOR for full flashing unit. State age, reference and address with telephone number.
Address Box 403

EXPERIENCED LUBRICATING OIL SALESMEN wanted by an old established house. Must be experienced. Have openings in Michigan, Indiana and Wisconsin. Give all details. Address Box 406.

For Sale

LUBRICATING OIL & GREASE BUSINESS FOR SALE

Established lubricating Oil and Grease business in good Pennsylvania City. Ample buildings, equipment, tankage, kettles, etc. Private railroad siding. Main thoroughfare and close to business section. Property must be disposed of at once. Very attractive proposition. Full details by appointment. If interested don't delay.

Address Box 407
care National Petroleum News

Equipment Wanted

2500-GALLON SEMI-TRAILER and tank, 10 to 20 thousand storage tank, one four wheel trailer with 1500 to 2000 gallon compartment tank. Must be in good condition. Harsha Oil Co., West Union, Ohio.

Business Opportunities

SALE AND PURCHASE
of
GASOLINE-and-OIL COMPANIES
BULK PLANTS and JOBBING CONCERNS
Confidentially Negotiated
WM. WISHAR
Broker of Oil Marketing Properties
2331 Grandview, Cleveland Heights, Ohio

Professional Services

PHOENIX
CHEMICAL LABORATORY
An Exclusive Petroleum Testing Laboratory
Equipped For All Known Tests and Research in Petroleum Products
3953 Castello Ave., Chicago
Telephone—Spalding 3578

ROYAL E. BURNHAM
Attorney-at-Law
Patent and Trade Mark Practice Exclusively
511 Eleventh Street, N. W.
Washington, D. C.

ANTI-KNOCK VALUES DETERMINATIONS
The Gray Industrial Laboratories
Chemists and Engineers
Specialists on Petroleum Products
961-976 Frelinghuysen Ave.,
NEWARK, N. J.
Telephone Bigelow 3-4020

Oil and Royalty Stocks on New York Curb

1936 High	1936 Low	1937 High	1937 Low	Par Value	Company	Transactions Week Ended Feb. 20, 1937 Sales Shares	High	Low	Last	Week's Change
1 7/8	1/16	2 1/4	1 1/4	N.P.	American Maracaibo	11,600	2	1 7/8	2	+ 1/8
8 1/4	3 1/4	12 7/8	7 3/4	N.P.	Arkansas Nat. Gas	10,100	11 3/8	10 1/2	10 7/8	— 3/8
8 1/4	3 1/4	13 1/4	7 7/8	N.P.	do A	52,500	11 3/4	10 5/8	11 1/8	— 1/2
10 7/8	7 1/8	10 3/4	9 3/4	$10	do pfd	6,000	10 3/8	10	10 1/8	— 1/8
7 1/4	6 1/4	8 1/4	6 1/2	$1	Ashland Oil & Refg	19,100	8 1/4	7 5/8	8	+ 1/4
27 1/4	16 1/2	25 1/2	24 1/2	N.P.	British Amer. Oil coup	100	25 3/8	25 3/8	25 3/4	+ 1/4
4 1/8	1 7/8	2 3/4	2 1/8	$1/4	Carib Syndicate	7,600	2 1/2	2 1/4	2 3/8	0
7 3/8	3	5 3/8	4 1/8	N.P.	Cities Service	58,100	4 1/2	4 1/4	4 1/2	+ 1/8
66	41 1/2	60	50 3/8	N.P.	do pfd	4,800	54 3/4	†50 3/8	54 1/2	+ 2 1/2
6 1/2	3 3/4	5 7/8	5	N.P.	do pfd. B					
63	40	58	46 1/2	N.P.	do pfd. BB	50	49	46 1/2	49	— 5
4		5/8		N.P.	Colon Oil Corp					
10 1/2	3/4	10 7/8	8 1/8	$1	Columbia Oil & Gas	18,200	9	†8 1/8	8 5/8	+ 1/2
3 1/2	2	3 1/8	2 3/4	$10	Consolidated Royalty	400	2 7/8	2 3/4	2 3/4	— 1/8
4 1/2	1 1/2	4 5/8	3	$1	Cosden Oil	13,500	3 1/2	†3	3 1/8	— 3/8
38 1/4	6 1/2	38 1/2	28 1/4	$100	do pfd	3,200	36 7/8	31	34	+ 3
2 3/4	1 3/4	2 5/8	2	N.P.	Crown Central Pet	23,600	2 5/8	2 1/2	2 5/8	0
2 3/8	3/4	2 3/8	1 1/2	N.P.	Crystal Oil Refg	400	1 7/8	1 3/4	1 7/8	— 3/8
18 1/8	9	18 1/2	16	$5	Darby Petroleum	14,100	18 3/8	17 3/8	17 7/8	— 1/8
6 3/4	1 7/8	7 7/8	5 1/4	N.P.	Derby Oil & Refg	2,900	6 7/8	6 1/2	6 5/8	— 1/4
81	25 1/2	88	76 1/2	N.P.	do pfd					
59	54	63 1/2	57 1/4	$25	Gulf Oil Corp	9,300	60 1/4	58	58	— 2
6 1/4	2 3/8	4 7/8	3 3/4	N.P.	Indian Ter. Illg. Oil A	200	4 1/4	4 1/8	4 1/8	— 1/4
6 1/2	3	4 7/8	3 7/8	N.P.	do B	300	4 1/8	4	4	0
5 3/4	2 5/8	8 3/4	5 1/4	$1	Kirby Petroleum	4,800	7 1/4	6 3/4	7	— 1/2
2	1/2	2 1/2	1	$25	Leonard Oil Dev	55,300	2 3/8	2	2	— 1/4
17 3/4	7 3/8	19 1/2	16 1/8	N.P.	Lion Oil Refg	6,400	18 3/4	17 7/8	18 3/4	+ 5/8
14 1/4	9 1/8	14 1/4	11 5/8	N.P.	Lone Star Gas	10,200	13	12 5/8	12 3/4	— 1/4
22 1/4	12	29	25	N.P.	Margay Oil Co	600	28	28	28	+ 1/4
4 1/8	1 1/2	4 1/4	3 5/8	N.P.	Mexico-Ohio Oil					
4 3/4	1 1/8	11	2 3/4	$1	Michigan Gas & Oil	16,200	*11	8 3/8	10 7/8	+ 2 3/8
6 5/8	2 3/4	7	5 5/8	N.P.	Mid. States Pet. A vtc	13,500	*7	6 1/4	6 1/2	+ 1/2
2 5/8	1/2	2	1 5/8	N.P	do B vtc	6,900	*2	1 7/8	1 7/8	0
8 3/4	5	7 7/8	6	$10	Mountain Producers	6,100	7 1/2	7 1/8	7 1/4	0
23	17 3/4	19 1/2	17 1/2	N.P.	National Fuel Gas	2,100	18 1/8	18	18	— 1/4
4 5/8	2 7/8	6	4 3/4	$5	New Bradford Oil	225	5 7/8	5 3/8	5 7/8	+ 5/8
8 3/8	3 1/8	6 1/8	5 1/2	$5	North Central Texas	400	5 1/2	5 3/8	5 3/8	— 5/8
1/2	1/8	1/4	1/8	$1	North European	28,400	*1/2	1/2	1/2	0
17 7/8	12	14 1/2	13 5/8	$5	Oil Stocks Ltd. A	100	13 5/8	†13 5/8	13 5/8	+ 5/8
10 1/8	3 1/4	9 5/8	7 1/8	$1	Pantepec of Venezuela	44,600	8 1/8	7 3/8	7 5/8	— 1/8
1/2	1/8	1/2	3/8	25c	Producers R. Corp	2,800	1/2	1/2	1/2	— 1/2
20	3	15	10	N.P.	Red Bank Oil	2,300	14 1/2	13 1/4	14	0
1 1/2	1/2	1 1/2	3/4	N.P.	Reiter-Foster Oil	15,200	1 1/2	1 3/8	1 3/8	+ 1/8
2 3/4	1/4			$25	Richfield Oil pfd					
19 1/4	4 1/2	13 3/4	10 1/2	$1	Root Petroleum	6,200	12 1/8	11 3/8	11 1/2	— 3/8
23	14 1/2	18	16 1/4	$20	do conv. pr. pfd	200	16 1/4	16 1/4	16 1/4	— 1/4
4 3/4	1 7/8	6 1/2	4 1/4	N.P.	Ryan Consolidated	3,100	5 3/8	5	5 1/8	— 1/8
11 1/4	6 1/4	10 3/8	9	N.P.	Southland Royalty	1,900	10 1/4	9 7/8	9 7/8	— 3/8
5	2 5/8	4 7/8	4	$1	Sunray Oil	37,800	4 7/8	4 3/4	4 7/8	+ 1/8
49	45	50	45 1/4		do pfd	500	49	48 1/2	49	0
9 3/4	5 3/8	7 5/8	6 1/4	N.P.	Texon Oil & Land	4,100	7 1/4	6 7/8	6 7/8	— 1/4
8	2 3/8	9 1/4	7 1/8		Venezuela Mex	3,400	9 1/4	8 1/2	8 3/4	— 1/2
3	1 1/4	3 3/4	1 3/4	$1	Venezuela Petroleum	10,200	3 1/8	2 7/8	2 7/8	0
11	5 5/8	12 7/8	8 3/4	$1	Woodley Petroleum	600	10 1/2	10 1/8	10 1/8	— 1/4

*New high. †New low.

New York Bonds

Week Ended Feb. 20

	High	Low	Last	Change
Atlantic Refg. deb. 5s	101 11/32	101 1/16	101 1/16	— 1/8
Houston Oil 5 1/2s '40	103 1/8	102 3/4	103	— 1/8
Pan Amer. Pet. of Calif. 6s	57	53	57	+1 7/8
do 6s ctfs. '40	57 1/2	53	57	+1 7/8
Pure Oil 4 1/4s '50	127	120	120 1/4	—8 1/4
do 4 1/4s '50	104 7/8	104 1/4	104 1/2	0
Richfield Oil of Calif. 6s	65 1/2	62 1/4	65	+2 1/4
do 6s ctfs	65 1/2	61 1/4	64 1/2	+1 3/4
Shell Union Oil 3 1/2s '51	99 3/8	97 1/2	99 3/8	+ 7/8
Skelly Oil 4s '51	101 1/2	100 7/8	100 7/8	— 1/2
Socony-Vacuum 3 1/2s '50	105 1/8	104 1/8	105	+1
S. O. N. J. 5 1/2s	99 1/2	98	99	— 1/4
Union Oil of Calif. 6s A	119 1/4	119	119 1/4	+ 1/4
Warner-Quinlan 6s	54	52	52 3/8	— 5/8

Pittsburgh Stock Exc.

Transactions Week Ended Feb. 19, 1937

	Sales	High	Low	Last	Change Over Week
Ark. Nat. Gas	533	11	11	11	—1 3/8
do pfd	126	10 1/8	10	10	— 1/4
†Cities Serv	422	4 3/4	4	4 1/8	— 1/4
Col. Gas & Elec	937	18 1/4	17 3/8	18	+ 1/2
†Col. Oil & Gaso	167	8 5/8	8 1/8	8 5/8	+ 1/4
Devonian Oil	128	24 1/2	24 1/2	24 1/2	—1 1/2
Lone Star Gas	3,535	13	12 5/8	12 3/4	0
† do 6 1/2 p.c. pfd	50	113	113	113	0
Mountain Fuel Supply	16,523	12	10	11 5/8	+1 1/8
Phoenix Oil	1,500	.10	.10	.10	— .05
do pfd	550	.15	.15	.15	0
Pgh. Oil & Gas	3,333	4 1/2	1 1/2	4	+2 1/2
Plymouth Oil	10	25 7/8	25 7/8	25 7/8	— 1/4
Shamrock Oil & Gas	2,457	7 1/4	7	7 1/4	0
do pfd	173	15	15	15	— 1/2
†Stand. Oil of N. J.	1,687	75 1/2	71 1/8	75 3/8	+3 7/8
Waverly Oil Works A	110	8	8	8	+ 1/2

†Unlisted.

Cleveland Stock Exc.

Transactions Week Ended Feb. 20, 1937

	Sales	High	Low	Last	Change Over Week
Canfield Oil					
do pfd	20	105	105	105	+25
Nat'l Refining	4,809	12 1/4	8 3/8	12	+3 1/2
do pfd	11	95	95	95	0

New York Curb Bonds

Week Ending Feb. 20

	High	Low	Last	Change
Cities Serv. 5s '66	76 3/4	76	76 3/4	— 1/4
Cities Serv. 5s '50	77 1/4	75 1/2	76 3/8	— 5/8
Cities Serv. G. 5 1/2s '42	101 3/4	100 1/2	101 1/2	— 1/2
Empire O & R 5 1/2s '42	92 1/4	91 1/2	91 3/4	— 1/4
Valvoline Oil 7s '37	99 1/4	99	99 1/4	— 1/4

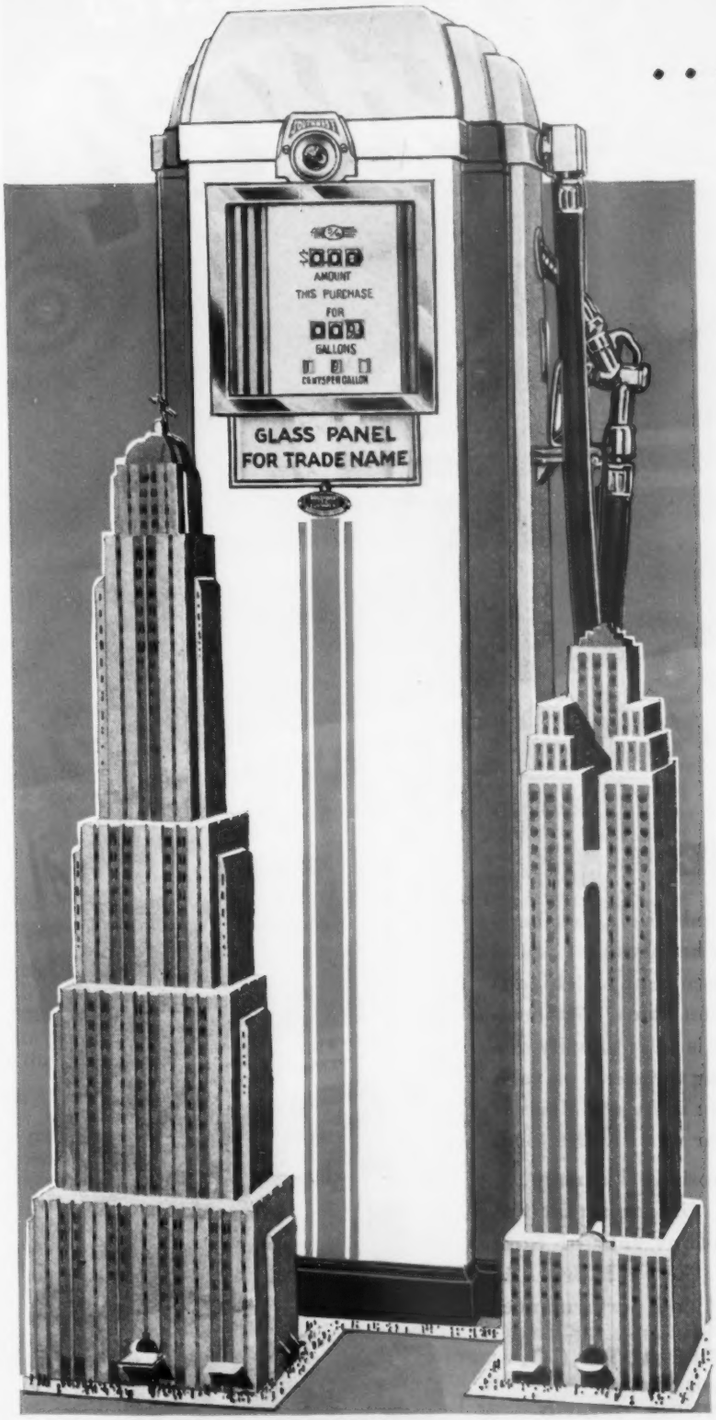
Oil Dividends

Dividends Waiting Payment

Company	Amount	Record	Payable
Atlantic Refg q	25c	Feb. 23	Mar. 1
Buckeye Pipe Line	$1.00	Feb. 19	Mar. 15
Canfield Oil	$1.00	Mar. 20	Mar. 31
do pfd		Mar. 20	Mar. 31
Chesebrough Mfg. Co. q	$1.00	Mar. 5	Mar. 29
do extra	50c	Mar. 5	Mar. 29
Consolidated Oil pfd. q	$1.25	Feb. 15	Mar. 1
Continental Oil	25c	Mar. 1	Mar. 29
Devonian Oil q	25c	Feb. 27	Mar. 15
El Dorado Oil Wks. q	40c	Feb. 19	Mar. 1
Gulf Oil Corp	25c	Mar. 15	April 1
Hancock Oil A & B extra	12 1/2c	Feb. 15	Mar. 1
do q	25c	Feb. 15	Mar. 1
Humble Oil & Refg	37 1/2c	Mar. 2	Apr. 1
Louisiana Land & Explor. q	10c	Mar. 1	Mar. 15
Lone Star Gas	20c	Mar. 20	Apr. 20
McColl-Frontenac q	20c	Feb. 15	Mar. 1
Paraffine Co. Int	$1.00	Mar. 10	Mar. 27
do pfd. q	$1.00	Apr. 1	Apr. 15
Phillips Pet	50c	Feb. 5	Mar. 1
Plymouth Oil	25c	Mar. 3	Mar. 31
do extra	10c	Mar. 3	Mar. 31
Quaker State Oil q	20c	Feb. 28	Mar. 15
Socony-Vacuum	25c	Feb. 18	Mar. 15
Southern Pipe Line	20c	Feb. 15	Mar. 1
Standard of Calif. q	25c	Feb. 15	Mar. 15
do extra	5c	Feb. 15	Mar. 15
Standard of Indiana q	25c	Feb. 15	Mar. 15
do extra	15c	Feb. 15	Mar. 15
Stand. of Ky. q	25c	Feb. 27	Mar. 15
Stand. of Nebraska	25c	Mar. 4	Mar. 29
Standard of Ohio	25c	Feb. 27	Mar. 15
do pfd. q	$1.50	Mar. 31	Apr. 15
Sun Oil Co. q	25c	Feb. 25	Mar. 15
do pfd	$1.50	Feb. 10	Mar. 1
Swan Finch 7% pfd. Ac	$2.62 1/2	Mar. 2	Mar. 16
Texas Corp	50c	Feb. 15	April 1
Texas Pacific Coal & Oil	10c	Feb. 8	Mar. 1
Tide Water Assoc	15c	Feb. 9	Mar. 1
Tide Water Assoc. $4.50 pfd. Int. q	$1.12 1/2	Mar. 10	Apr. 1
Union Tank Car q	40c	Feb. 15	Mar. 1

THE NEW SOUTHWEST 812's

. . . as *Modern* as *Tomorrow's Skyscraper!*



Designed and built for

PROFITABLE OPERATION

Today and Tomorrow!

Dependable performance has been an outstanding characteristic of Southwest Pumps for more than twenty years. And now, more than ever, *dependability, accuracy* and *safety* are built into every Series 812 Southwest Gasoline Business Machine—the *modern* computing pump.

Southwest Gasoline Business Machines are designed and manufactured in the heart of the great Texas oil fields—in the section with the greatest producing and refining capacity. These fine, *modern* gasoline pumps have proved their dependable performance under the most adverse operating conditions, day-in and day-out . . in the oil fields and in remote points . . in bitter cold and torrid heat.

These *modern* pumps not only give dependable performance, they have dependable design. Southwest Gasoline Business Machines are correctly designed with classic beauty as *modern* and as *lasting* as a new skyscraper!

Go modern! Service stations everywhere are modernizing . . to attract customers and build profits. Be sure that the pumps you buy are truly modern with beauty that endures . . buy Series 812 Southwest Gasoline Business Machines!

WRITE TODAY!

SOUTHWEST PUMP COMPANY,
Dept. N 237 Bonham, Texas.

Without obligation, tell me about SOUTHWEST 812's.

*Name*_____

*Address*_____

*City*_____ *State*_____

(PASTE ON PENNY POSTAL)

SOUTHWEST PUMP CO.

MANUFACTURERS AND DESIGNERS • SINCE 1916

BONHAM — TEXAS

ON ALL FOUR WHEELS

gives you greater SAFETY and PERFORMANCE

Four-wheel-drive gives the same increased safety, performance, and economy that are found in four wheel brakes . . . and likewise four-wheel-drive is another advancement which adds appreciably to safe, dependable, and economical performance of trucks . . . In the FWD the power is scientifically distributed over the four wheels thus reducing the stress on each driving axle by one-half and increasing tire mileage. More of the engine power—88.2%—is available for moving the load.

Power on the front wheels gives more positive steering . . . the driving force is always in the same direction that the front wheels are turned. Two independent sets of four wheel brakes are features in the FWD . . . the FWD Truck is unmatched for safety — speed and performance.

An FWD Line Construction truck meets every requirement of Public Utility Service.

Oil field service demands FWD Performance.

Greater Safety—a vital necessity in hauling inflammable products.

FWD

THE FOUR WHEEL DRIVE AUTO CO.
CLINTONVILLE, WISCONSIN
Canadian Factory, KITCHENER, ONTARIO

FOUR-WHEEL-DRIVE TRUCKS

THE SAFEST TRUCK ON THE HIGHWAY

DEVELOPMENTS IN PETROLEUM MARKETING

THE problems before the marketing branch of the oil industry today are analyzed in a most workmanlike manner in the accompanying paper and, although it is long, it deserves the study of every man engaged in oil marketing and will hold his attention if he starts to read it.

The author does not attempt to find the solution of the problems of oil marketing, but he does throw new light on such points as the status of the independent jobber today, the underlying cause of the adoption of the so-called Iowa Plan, the tank wagon price to the consumer, the reasons for the continued expansion of retailing marketing outlets by the integrated oil companies and so on. Such an analysis warrants a good deal of further study and comparison with conditions in other industries.

Mr. Swensrud's connection in the oil industry is with a company which is primarily a marketing enterprise and he has given many years of time to the study of the various problems of oil marketing—Editor.

By **SIDNEY A. SWENSRUD***

(Presented at the Annual Meeting of the American Institute of Mining and Metallurgical Engineers, New York, Feb. 18)

IN THIS PAPER we should like to begin by reviewing the data on margins; we shall then discuss some of the more current marketing problems; and, finally, we should like to give some consideration to the question of what are the main urges to marketing expansion, or over-expansion, in the oil industry.

Margins

In the paper for 1932, some comparisons were shown for the years 1929, 1930 1931, of the margin between the refinery cost of gasoline in Oklahoma, the market price in Oklahoma, and the average retail price in 50 representative U. S. cities. These figures indicated a small margin for the refiner in 1929 between his gasoline cost and the wholesale price, which, however, had turned into a loss by 1931. The margin between either refinery costs or wholesale prices and the 50 cities retail price showed a continuous decline during the three years.

We have now worked out these figures on a similar basis for a longer period, viz., from 1928 through 1936. The refinery gasoline cost figures are slightly different than in the earlier study owing to the use of more accurate data now available on crude oil transportation and refinery costs. The method of arriving at refinery gasoline costs in Oklahoma was to add together the well price of crude oil, the rate for pipeline gathering and delivery into the refinery and the cost of processing the crude into the typical refined products indicated in the Bureau of Mines reports for the Oklahoma-Kansas-Missouri district. From such total was then deducted the wholesale value of the products other than gasoline and the balance of expense remaining was assumed to be the cost of gasoline produced[1].

The gasoline cost figures arrived at and the wholesale refinery prices in Oklahoma for the years in question are shown below:

TABLE I

	A Cost of Gasoline at Okla. Refineries Cents per Gal.	B Price of Gasoline at Okla. Refineries Cents per Gal.	C Refinery Profit Margin (A—B) Cents per Gal.
1928	6.80	7.97	1.17
1929	7.10	7.60	0.50
1930	6.70	6.15	Loss 0.55
1931	4.60	3.62	Loss 0.98
1932	5.40	4.50	Loss 0.90
1933	4.20	3.80	Loss 0.40
1934	5.50	4.60	Loss 0.90
1935	5.10	5.35	0.25
1936	5.50	5.86	0.36

The above figures tell a story familiar to everyone in the industry, namely that from 1931 through 1934 the refiner paying for, or the refinery department of an integrated company being charged with, crude oil at the well price plus pipeline tariff rates was unable to make gasoline at a cost as low as the prevailing refinery prices. In other words, a marketing company buying its gasoline in the wholesale market during those years had a better marketing margin than did the refiner-marketer.

The margin between the wholesale price of regular grade gasoline in Oklahoma and the retail price of similar gasoline in 50 representative U. S. cities shows a steady downward trend through the whole 9-year period, with the exception of 1934, when the trend was temporarily interrupted by the NRA Code. The figures are shown in Table II (prices are exclusive of taxes):

TABLE II

	Average Retail Price of Regular Gasoline in 50 U. S. Cities—Cents per Gal.	Price of Gasoline at Okla. Refineries Cents per Gal.	Margin of Retail Price over Wholesale Price in Okla.—Cents per Gal.
1928	17.90	7.97	9.93
1929	17.92	7.60	10.32
1930	16.17	6.15	10.02
1931	13.00	3.62	9.38
1932	13.30	4.50	8.80
1933	12.41	3.80	8.61
1934	13.64	4.60	9.04
1935	13.55	5.35	8.20
1936	14.00	5.86	8.24

As seen in these figures, the reduction in the overall margin from the 1928-30 era to the present time has been about 2 cents a gallon. It would, I think, be wrong to conclude that all this reduction has come out of marketing as such. The margin registered by this comparison is properly speaking, a transportation and marketing margin, and probably at least half of the reduction has been in the item of transportation of gasoline, either directly or in the form of crude oil, from the crude oil sources to bulk stations.

These reductions in transportation have resulted from several factors, principally the substitution of water, truck transport, or pipeline shipments for rail shipments,

*Assistant to the president, Standard Oil Co. (Ohio).

(1) A summary of the detailed calculations are as follows:

Oklahoma Refinery Gasoline Costs

(Based on Refining one 42-Gallon Barrel of Crude)

	Price of 36° Crude at Well	Gathering Rate Plus 3c Marketing	Processing at Refinery	Total Costs	Value of Non-Gasoline Products	Balance of Exp. Against Gasoline	Gal. of Gasoline per Bbl. of Crude	Cost per Gallon
1928	$1.31	$0.23	$0.38	$1.92	$0.50	$1.42	21.0	$0.068
1929	1.36	0.23	0.38	1.97	0.50	1.40	20.7	0.071
1930	1.24	0.23	0.40	1.87	0.39	1.48	22.3	0.067
1931	0.65	0.23	0.40	1.28	0.28	1.00	21.0	0.046
1932	0.87	0.23	0.42	1.52	0.33	1.19	22.0	0.054
1933	0.62	0.20	0.42	1.24	0.33	0.91	21.7	0.042
1934	1.00	0.15	0.46	1.61	0.41	1.20	21.8	0.055
1935	1.00	0.13	0.45	1.58	0.47	1.11	21.8	0.051
1936	1.10	0.13	0.45	1.68	0.48	1.20	21.8	0.055

and to a slight extent reduction in rail rates. Gasoline exchanges among refiners have been an important item, but for the most part such exchanges are another method of substituting water or pipeline for rail movements.

As for the balance of the reduction in margins which has come out of the marketing and as distinguished from the transportation end, the factors at work would seem to be the same ones which have been mentioned in the earlier papers, particularly the lower retail prices forced by the trackside and other cut-rate types of marketers. Also, as we shall point out later, there have been reductions in handling and delivery costs within the jobber function as distinguished from the major transportation savings, mentioned above, from refinery to bulk station.

The story of declining margins, however, is not fully disclosed by analysis of regular grade gasoline alone. In 1930, 20 or 30 per cent of the gasoline sold was premium grade on which the extra profit margin was around 1.5 cents a gallon. Today the percentage of premium gasoline is almost negligible, the extra price and consequently the extra margin per gallon are lower (probably not over 1.5 cent per gallon), and the premium grade is offset by the lower margin on third grade gasoline.

Oil Ratio Lower

On motor oil, the average retail selling price per gallon in 1930 probably was around $1.15 a gallon, in bulk; today, we believe, it is less than $1 a gallon, and the oil itself is higher quality, to say nothing of the extra expense of the cans in which a large proportion of oil is now sold. The cost of quart cans for a gallon of oil is about 10 or 12 cents and material prices are rising. Furthermore, the ratio of oil to gasoline has greatly diminished since 1930.

Against these reductions in margin on comparable sales items is the fact, of course, that oil companies today are selling more accessory merchandise, including tires and batteries. The profit margin on such sales, however, after deducting the extra expense incurred probably is not large enough to constitute any substantial offset to the decline in margins on gasoline and oil which have occurred.

Coming to more immediate problems, it seems to me there are four essential marketing questions before the oil industry, to-wit:

1. Who shall do the retail marketing?
2. Who shall provide the capital facilities for marketing?
3. What shall the gasoline price structure be?
4. How much rationalization machinery in the way of codes, legislation, and the like shall be had?

Who Shall Do the Retail Marketing?

I. Who Shall do the Retail Marketing?

Many people seem to think that, so far as retailing is concerned, the question of who shall do the marketing has been settled finally and completely by the "Iowa Plan." The writer was born and raised in Iowa, but so far as this question is concerned, I'm afraid he's from Missouri.

What is the "Iowa Plan"? Is it merely the leasing out of a large proportion of major company owned stations? No, that had been going on for a long time before the Iowa Plan was heard of, purely as a matter of economy and to obtain the best efforts of individuals preferring to work for themselves. The distinction, we believe, is that under the Iowa Plan the major company leases out *all* its service stations and hence ceases to be a retailer or to post retail prices.

One hears various reasons assigned for the adoption of the Iowa Plan, such as chain store taxes, the Robinson-Patman bill, social security taxes, etc. All of these probably are contributing factors, but none of them, we believe, has been the main reason. In most states where the Iowa Plan has been put into effect there either were no chain store taxes or none applicable to service stations. The Robinson-Patman bill had not been heard of when the Iowa Plan was first put into operation, nor had the social security laws been enacted.

In so far as these measures put a bur-

Illustrating a type of competition in retail marketing which comes from outside the oil industry. Ransom E. Olds, pioneer automobile manufacturer of Lansing, Mich., several months ago opened this $50,000 station, there, which has over 40,000 feet on two floors, mostly devoted to parking space. Servicing is complete to the point of including a restaurant which faces the pump island at the far side of the picture

TOUGHEST HOSE ON THE DOCKS

Cross section GOODYEAR STYLE M
8"—8 x 10-ply
OIL SUCTION and DISCHARGE HOSE
A
B
Wire nipple binding (A) locks hose to flanges (B), forming leak-proof seal and providing maximum end-pull resistance

"It's got what it takes" is the universal verdict on Goodyear Style M Oil Suction and Discharge Hose in the world's greatest petroleum ports. A product of Goodyear's long experience in the oil industry, it is tough and strong as a giant python, and almost as flexible!

Built for manhandling

Its sturdy cover is built extra-thick to withstand the severe abuse of dock service. Its many-plied carcass of heavy duck and oil-resisting rubber — reinforced with twin wire windings that prevent expansion — holds pulsating working pressures up to 200 pounds without a quiver. An internal core of stout, yet extremely supple flat wire adds sinewy strength that permits *flexing without distortion* and prevents collapse under suction.

The sum total is greater dependability, longer life under severest service and weather conditions, *less replacement expense.* These same advantages obtain in Style W for pressures up to 125 pounds and Style S, armored, for sea loading service. The G. T. M. — Goodyear Technical Man — will be glad to consult with your engineers on the correct type for your loading. Write Goodyear, Akron, Ohio, or Los Angeles, California — *or the nearest Goodyear Mechanical Rubber Goods Distributor.*

THE GREATEST NAME IN RUBBER

GOODYEAR

BELTS
MOLDED GOODS
HOSE
PACKING
MADE BY THE MAKERS OF GOODYEAR TIRES

den upon salary operations which is not borne by individual dealers, the latter form of operation, of course, is promoted at the expense of the former, and service stations, being small separately operated units can be shifted over to individual proprietors, in contrast to other activities, such as refining, which requires a large aggregation of workers in one place whose efforts must be closely co-ordinated and carefully directed.

These reasons, however, concern merely the expense side of station operation, and from that standpoint other factors have been more important than those cited—particularly the increase in service station wages for many companies and the shortening of hours of salaried employes as compared with conditions three or four years ago. It was, of course, a vain hope on the part of service station workers is a whole that, in the absence of any similar provisions as to individual dealers, high wage and low hourly schedules could be applied to company operated stations without causing a fundamental change in methods of operation. The experience of NRA, however, probably demonstrated as clearly as anything that the preservation of the small individual entrepreneur's independence and right to work as long as he pleases for as little as he chooses, is at least as sacred a part of the American economic and political system as the hopes and demands of wage earners.

Leased During NRA

It is noteworthy that the philosophies of these two groups come peculiarly into conflict in the retail end of the oil business, which is carried on largely in one-man units. The oil code sought to avoid this conflict by forbidding any effective change in status of operation; but even this could not prevail against the forces at issue, and widespread leasing of stations had commenced even before the NRA expired.

The foregoing factors constitute no reason per se for leasing *all* company stations, however. That practice must be attributed to other reasons. One of these, we believe, is the desire to get increased gallonage into company stations through the more personal efforts and the greater price flexibility which are characteristic of individual dealer operations. Most large companies seem to have concluded that they can not permit salary stations to grant discounts to selected customers such as truck operators, but must have only one price for each product.

Equally strong, however, seems the conviction that not all customers desiring to buy at retail can be induced to pay the same price, and the dealer seems better adapted than the salary operator to extend to certain classes of customers the necessary commercial discount. The ways in which this is done are many and varied. When a trucker sees on a dealer station a sign "Trucks Welcome Here," for example, he is not likely to misunderstand the nature of the welcome. On certain heavily traveled routes three small green lights has become the accepted symbol of a discount to truckers. Suffice it to say that probably no truck operator whose retail gasoline purchases are at all substantial pays the full service station price.

Drops Responsibility

The last, and perhaps most important reason for leasing *all* stations is the fact that thereby the company ceases to have any direct responsibility for retail prices and, consequently, for the dealer margin. So long as a company sells both to dealers and at retail it must establish both dealer and retail prices, and by definition the differential between them, which is the dealer's margin. By and large, however, dealers want wider margins, particularly since the code days, and the dealer is often persuaded that, if his supplier would only raise the retail price without increasing the dealer price, no harm would be done and the dealer would have his much desired extra margin. Naturally few things would appeal to the major company supplier operating retail stations more than to have a higher retail price, but long experience has made it clear that too high a retail price brings its own penalty through the opportunity it gives for open price cutting on the part of trackage stations and the like, and for secret discounting on the part of all other types of marketers.

It is often difficult, however, to convince dealers of the reality and importance of these price making forces, and since the question of margins tends to become a semi-political one, there is thought by some to be an advantage in allowing retail dealers to settle for themselves the question of what the retail prices are to be, the major companies terminating their interest in price with the sale and delivery of the gasoline to the dealer, thereby divesting themselves of the whole responsibility for retail prices and dealer margins.

If this last consideration is one of the main reasons for the complete leasing out of stations, then it is perhaps pertinent to examine the question of whether the major supplying companies *can* thus easily shed the responsibility for dealer margins and can divorce themselves from all interest in and concern with retailing and retail prices.

New Concept of Prices

We do not believe they can. Certainly the assumption that the dealer under the competitive system can in some way fix the retail price to his own liking involves a new concept of price determination, namely that the competitive forces heretofore operating to determine retail prices no longer are effective. Perhaps, however, this misconstrues the question, for probably it is not so much that the major companies believe that the dealers can arbitrarily determine the retail price level as that the dealers have previously believed that the major companies could do this and have insisted upon holding them responsible for retail price levels, and hence that it is better that the dealers should be allowed to find out for themselves the reality of the competitive retail price making forces.

In any case, it would seem that, in the end, the conclusion will become fairly well established that, under the competitive system, retail prices are beyond the arbitrary control of either dealer or supplier, but are fixed by the competition among all types of marketers and by the fundamentals of supply and demand. When this conclusion is reached it is hard to see how the suppliers will have escaped from any responsibility they previously appeared to have for the width of dealer margins, because they will still be establishing the price *to* dealers and the difference between this and the actual retail prices will *be* the dealer margine.

Furthermore, if experience in other lines of retailing is any index, retail dealers will be urging upon their suppliers efforts to maintain resale prices of their respective brands, so as to protect one retailer against the price cutting of other marketers handling the same kind of merchandise.

Of course some advocates of the Iowa Plan believe that by eliminating the practice of basing the dealer price on a certain amount or margin under the service station price *whatever* it is, the price to dealers henceforth will be freed or insulated off from the retail price level, instead of being borne down immediately when any reduction in the retail price takes place. But to suppose that the dealers' supplier in the face of reduced retail prices, would fail to cut his price to dealers to whatever extent seemed necessary to protect them is to suppose that the whole nature of the industry has undergone a fundamental change.

Will Protect Dealers

For it must be realized, we believe, that the typical major oil company regards its jobbers and dealers as its marketing representatives. As one authority puts it in a letter, "They (the major companies) frankly state that jobbers and dealers are their distributing facilities and that they will give them any margin that is necessary to keep them in business . . . . Under the Iowa Plan, therefore, while the tank wagon price superficially may be somewhat more stable than the present marginal price, it will not be any unyielding Rock of Gibraltar . . . When, under the Iowa Plan, competition among marketers cuts the realized price down to a point which would mean economic funerals among the dealers, their suppliers either directly or indirectly will protect them. There will be cutting of the tank wagon price, either open or secret, or special concessions."

So much for the reasons. There are some interesting operating aspects of the Iowa Plan. One is the matter of rents received from dealers. There is much speculation as to whether the dealers may not conspire, as it were, to insist

Reasons for Iowa Plan

The following four reasons are given in the accompanying article by Mr. Swensrud for the larger oil companies withdrawing from direct salary operation of their retail outlets:

"First, to save money—a reason which becomes more important as gallonage per outlet declines, as wage and hour conditions for salary employes become more rigid and chain store and employe taxes tend to be added.

"Second, to gain increased volume through the more flexible price policy of the individual dealer.

"Third, to escape immediate responsibility for dealer margins.

"Fourth, to avoid criticism and attack on the vulnerable point of subsidizing unprofitable marketing operations."

PETROLEUM HAULERS NEEDED IT!

→ WHITE → BUILT IT!

And it's a Sensational Winner!

The new White—at the lowest price in White history—is heading for a new sales record. Here is a White Truck—every ounce of it—with modern performance, unequalled economy, exclusive safety features and streamlined beauty of unusual advertising value. While the initial price of this new White is slightly higher than the "passenger car type" trucks the total investment over a period of time is considerably less. For less total transportation investment you can now have all the advantages of White ownership from the beginning.

See the new Model 700 at the White Branch or Dealer in your city. Telephone for a demonstration. Terms as easy as any in the industry.

THE WHITE MOTOR COMPANY • CLEVELAND

THE LOWEST PRICE FOR WHICH A

White

TRUCK

HAS EVER SOLD!

•

NEW MODEL 700

12,000 LBS. GROSS

BASE PRICE $985

and up—at Cleveland Plant

for Standard Chassis

•

upon lower and lower rentals if the leasing company, under the Iowa Plan, does not stand ready to resume operation of the station itself. Personally, we believe this is a rather limited danger because, if the rental price should get so low as to be a real bargain, new dealer bidders would appear willing to pay more. But it does seem likely that most of the major companies will be unable, as they have been heretofore, generally speaking, to obtain rents equal to their own "landlord" costs. In such case, shall the difference between rent and cost be considered the equivalent of a price concession to the dealer leasing the station?

Status of Service?

There is also the question of service. Many people fear that a lowering of the standard of service will result from the oil companies discontinuing the operation of their stations. We believe it is too early, however, to draw any final conclusions on this point.

What, then, is the significance of the Iowa Plan? Being still from Missouri, we doubt that it represents any real solution of marketing problems. Yet it must certainly be considered as a response to some rather strong impelling forces. In a sense it is, we believe, a logical conclusion of developments which have been under way for a number of years. It has become trite to call attention to the over-expansion of oil marketing facilities, and most people have sensed that in some way this over-expansion has been, at least in part, the result of ulterior forces, rather than merely the attraction of marketing profits as such. We shall have occasion to examine this question further, but at this point we may say that the urge for marketing expansion originates largely in pressures and profits in other ends of the business.

Such an over-expansion of marketing made the costs of marketing very high. And the attempt to keep prices high enough and margins wide enough to cover these bloated costs created, in turn, a splendid opportunity for open price cutters in the form of trackage stations and the like. There developed, therefore, a conflict between prices and costs, focusing in the dealer and jobber margins. The margin must be wide enough to keep the over-expanded distribution facilities going; on the other hand, cut prices must be met or the necessary volume of business would be lost. Some major companies tried to solve this latter part of the dilemma by selling to the price cutters as well as through their own distribution systems.

The dealers and jobbers, like the independent refiners, however, have no ulterior motives for *their* operations, consequently they are interested solely in marketing and refining margins as such. The dealer demands a wide enough margin on which to operate and make a little money. The supplier says, "We cannot get the retail price high enough to give you the margin you would like to have." The dealer replies, "Then give me a cost price low enough so that at the retail price you think is necessary I will have sufficient margin." But this would often mean a dealer price so low as to leave no profit for refining or for the jobbing end of the business. Nevertheless, the independent marketer points out that, on sales through its own operated stations, the integrated company nets back, after deducting expenses, a far lower amount per gallon than that at which it sells to its distributors, and the latter says, "Give me that net back price and I will be satisfied."

Retailing Expenses

More and more the independent distributor's attack has centered upon the allegedly subsidized marketing of the major companies through their own retail outlets. Some data on what the major companies own retailing expenses have been are available from scattered sources. One of these is an analysis of "Retail Distribution by Filling Station Chains," made by the Bureau of the Census for 1930. The figures covered a total of 864 chains operating 30,058 stations; 24,085, or approximately 80 per cent, of these were operated by sectional or national chains, presumably mostly integrated oil companies, the remaining 20 per cent being in local chains, defined as stations located in and around some one city. The expenses were not shown separately for the different types of chains, but we believe the proportion of major company operated stations is so large that the figures may be considered representative of such operations.

The expenses reported amount to 23.77 per cent of sales. *These were the retail expenses only.* Quoting from the report, "It is strictly the operating expense of the stations and does not include tank truck transportation to the stations, nor central office administrative expense." It did not include interest on capital invested, or on owned land, although 44 per cent of the stations were on owned rather than leased premises. The rent on the leased premises averaged 6.23 per cent of sales, or approximately 1.25 cents per gallon on gasoline sales.

Applying to gasoline sales that proportion of the total expense which such gasoline sales represented of the total sales (i. e., 85.02 per cent), it is found that to market the average gallon of gasoline through these stations cost about 4.90 cents a gallon.(1) If we were to add a reasonable amount for interest on owned stations, we believe it is safe to say that the total retailing cost per gallon would be around 5.5 cents per gallon.

Costs Per Gallon

In 1934, in connection with the arbitration of certain wage questions arising from a service station strike in Cleveland, figures were presented to the arbitrators concerning the operating costs of between 500 and 600 service stations operated by nine companies in 1931 and 1932 and ten companies in 1933. These figures were quoted by the Labor Sub-committee of the Planning and Co-ordination Committee under the Petroleum Code in a brief entitled, "Modification of Labor Provisions of Petroleum Code," being exhibits R-1, R-2 and R-3 of that report. (See also National Petroleum News, Page 15, Sept. 5, 1934).

Selecting only the expenses incurred at the station and using the same percentage of such expenses as the gasoline sales represented of the total sales, retailing expense figures of 5.40 to 5.86 cents per gallon of gasoline were arrived at, as shown below:

	Number of Stations	Avg. Gaso. Sales per Month Gals.	% of $ Gasoline Sales to Total	Total Retail Expense (per Gallon of Gaso. Sold) Cents	Expense Applicable to Gasoline Only-per Gal. of Gasoline Sold Cents
1931	553	9,500	82.6	6.54	5.40
1932	521	8,800	83.3	6.78	5.64
1933	580	7,600	81.4	7.21	5.86

The only other detailed expense figures published for gasoline retailing that we know of are those contained in the survey of motor fuel retail outlets in Allen county, Indiana (Ft. Wayne) made by the Petroleum Administrative Board covering the year 1934. It was found possible to obtain satisfactory data for 117 drive-in stations, out of a total of 411 retail outlets in the county. For these stations, as shown in Table 4, Page 155, of the "Final Report of the Marketing Division of the Petroleum Administrative Board," issued in June, 1936, the marketing costs applicable to gasoline were as follows (classified by volume groups):

Volume Group	Number of Stations In Group	Avg. Month-Gaso. Sales per Station (gallons)	% of $ Gasoline Sales to Total	Total Retail Expense (per Gallon of Gaso. Sold) Cents	Expense Applicable to Gasoline Only-per Gal. of Gasoline Sold Cents
I	5	21,260	82.2	4.08	3.35
II	25	10,690	66.87	6.51	4.34
III	33	6,180	81.77	5.38	4.39
IV	29	4,090	77.53	7.47	5.77
V	23	2,340	81.02	8.50	6.88
	117	6,520	75.28	6.20	4.61

These figures for Allen county, Indiana, are notably lower than the figures for the filling station chains and for the major company stations in Cuyahoga county, Ohio. It must be remembered, however, that the stations included in the Allen county study were not classified according to the type of operation, and undoubtedly included a large proportion of dealer stations as well as those operated by integrated companies. But in all of the cases studied it is notable that the costs of retailing applicable to gasoline were far higher per gallon of gasoline sold than the margins usually allowed to retail dealers, which ordinarily run from 3.5 to 4.0 cents a gallon.

As dealers have become more conscious of their position in the industry, the status of these high cost integrated company retailing operations has become more and more embarrassing. Since the purpose of such retailing for many integrated companies evidently has not been primarily to make profits in marketing as such, the failure to make profits thereon has operated to only a negligible degree, if at all, to restrict the further expansion of service station building by these same companies.

But however determined these com-

(1) This being 23.77 per cent applied to an estimated price of 20.6 cents per gallon received for retail sales of gasoline in 1930; this price is based on 19.95 cents a gallon for regular grade gasoline (the average price shown in the A. P. I. index for 50 U. S. cities), and 22.95 cents for premium grade gasoline, estimated at 20 per cent of total sales, as reported in the National Petroleum News, Page 95, April 15, 1931.

You ought to KNOW

these two big requirements of Hypoid Gear Lubrication

1 High Load-Carrying Capacity

2 Chemical Stability during protracted storage, as well as under long service and extreme heat, with freedom from precipitation and minimum foaming. *No necessity for agitation prior to use.*

You ought to SELL...

the Hypoid Lubricant that meets *both* demands!

The Detroit-Approved Hypoid Gear Lubricant

PENOLA EXPEE COMPOUND

Send for this free file booklet—"1937 Cars Demand Extreme Pressure Lubricants." It will help you to hold your hypoid lubricant customers and win even greater volume and profits in this big new market!

● The wide acceptance and general use of Penola Expee Compound—at Detroit and in the field—are best proofs of the statements made above.

But back of Penola Expee's popularity today are years of testing in close cooperation with engineers of Detroit's great automotive plants . . . on their proving grounds.

From these rigorous tests emerged the formula of Penola Expee Compound . . . combining *both* high load-carrying capacity and chemical stability.

For three years Penola Expee Compound has proved its quality in thousands of cars, over millions of miles. Which explains why so many cars leave the factory with Penola Expee Compound as the *first* hypoid lubricant!

Sell the Detroit-approved lubricant for hypoid gears. It's a big chance for profits. Get in touch with Penola *today!*

PENOLA GREASES · PENOLA INC., 30 ROCKEFELLER PLAZA, NEW YORK CITY

(Formerly Pennsylvania Lubricating Co.)

Grease Works Operated at Baton Rouge, La., Eldorado, Kans., Baltimore, Md., Pittsburgh, Pa.

panies may be to go on acquiring stations in order to have assured outlets and extra sales, it would be desirable nevertheless to avoid some of the heavy losses on the operation of the stations, if possible. Furthermore, to continue building more stations to be operated at a loss has the appearance of an untenable proposition, and one which naturally makes its sponsor highly vulnerable to political and semi-political attack by independent marketers who have entered the marketing field for the sake of making a profit in it as such. It should not, of course, be inferred frm this discussion that no large company's marketing operations are profitable as such. There are a number of companies who came into the business originally as marketers or as marketers and refiners whose marketing operations, as such, are on a profitable basis.

Four Reasons Given

But to return to the general status of integrated company retailing, we may summarize by saying that there have been several logical reasons for these companies withdrawing from direct salary operation of their retail outlets. First, to save money—a reason which becomes more important as gallonage per outlet declines, as wage and hour conditions for salary employes become more rigid and chain store and employe taxes tend to be added; second, to gain increased volume through the more flexible price policy of the individual dealer; third, to escape immediate responsibility for dealer margins; and fourth, to avoid criticism and attack on the vulnerable point of subsidizing unprofitable marketing operations.

To assume, however, that the Iowa Plan indicates that the integrated companies are retiring from marketing or that the Iowa Plan has solved their marketing problems in any important way, is to assume what is not the case. When major companies cease to build new stations and when they sell, not merely lease for short periods, the stations they already own, then, and not until then, will they have withdrawn from retailing.

In the meantime, they have merely substituted a less expensive and perhaps a less burdensome and vulnerable method of operating the stations they do own. But it must not be overlooked either that one of the expenses of operating these retail stations will continue to be the difference between the integrated company's cost of owning and maintaining these stations (including interest on the investment, taxes, assessments, repairs, painting, depreciation, ground rent paid, administration, accounting, and all other expenses connected with these properties) and the rent received from the dealers to whom the stations are leased. This, we fell certain, is and will continue to be a very large item.

But if our analysis is true, then there would seem to be little reason for a company whose retail operations are on a sound and profitable basis, to adopt the "Iowa Plan", albeit it may find it well worth while to lease a goodly number of its stations to capable and enterprising individuals.

Who Shall Supply the Capital Facilities for Marketing?

We have suggested in the preceding section that there is as yet no indication that major companies are withdrawing from the ownership of stations, but instead are continuing to build more stations. While there are no readily available statistics covering the last two years, I believe it is a fair observation that, if anything, the major companies have spent or supplied more money for the building of new stations during the last two years than for any previous similar period in a long time.

So far as the general increase in the number of outlets during the last several years is concerned, that is evidenced by figures from the Bureau of the Census. For 1929, the bureau reported a total of 124,038 filling stations. In 1933, the bureau's figure was 170,404. For 1935, a special census report indicated the total had reached 196,649, an increase of about 15.4 per cent over 1933. In 1934, the Petroleum Administrative Board made a detailed study of service station ownership and operation and some interesting light is thrown upon the growth of integrated company stations in that study. In Table VII of the report (issued by the House of Representatives under H. R. 441), figures for the integrated companies which reported were shown as follows:

Up to 1933 the stations in both categories—i.e., owned and operated by others, and owned and operated by the company—increased and the total of the two groups increased. After 1933 the number operated by the companies declined but the total continued to increase. There would seem to be little or no connection, therefore, between the method of operation and the growth in number of major company owned stations; the flow of capital into such facilities goes on irrespective of the method of operation.

The investment of major companies in retail marketing has not, of course, been limited to owned stations. It has included practically all of the storage and dispensing equipment for gasoline and oil at the dealer and other outlets handling these companies' products. The pre-NRA voluntary Federal Trade Commission Code tried to limit the expansion of this practice by prohibiting it on the part of the signatories of that code in areas where it was not already in vogue.

To some extent this was nullified by the practice which soon developed, of major companies leasing the larger dealer outlets and then re-leasing them to the dealer or making him the company's

Service Stations Owned by Integrated Companies

Date	Status: Closed Down	Operated by Others	Operated by Company	Total
Jan. 1, 1930	365	6,605	16,976	23,946
Jan. 1, 1931	982	8,125	20,780	29,887
Jan. 1, 1932	435	7,930	22,501	30,866
Jan. 1, 1933	555	7,770	24,627	32,952
Jan. 1, 1934	803	9,480	24,248	34,531
July 1, 1934	870	10,166	23,761	34,797

A modern station in an old world setting. In the old and historic city of Quebec, Canada, this station, owned and operated by J. A. Roy, offers a striking contrast to the surrounding property. On the opening day, recently, 6015 imperial gallons of gasoline were sold, and since that time the station has maintained an average of 2000 gallons daily. In Quebec, gasoline is referred to as "gaz," which explains the sign on the station building. Photo by Bowes Seal Fast Corp.

I. We Claim—

That there is a reasonable year around profit in the distribution of nationally advertised Industrial Naphthas.

II. Proof—

We have satisfied distributors who have handled our naphthas since 1927 and consistently shown a profit.

III. Background—

1. Intelligent Refining.
2. A Research and Sales Development laboratory occupying 4500 sq. ft. of floor space in Chicago, the heart of Industrial Manufacturing where all manufacturing problems are studied. They work with your salesmen and answer all technical questions for their customers.
3. National trade publication advertising that has made our trade marked products a 'Buy-Word' in industry.
4. A national reputation for integrity and quality.

IV. What do you do—

If you are now handling naphtha, fill in the coupon below. Possibly we can show you the way to better profits.

If you are not handling naphtha today but are interested, fill in the coupon and we will tell you frankly what prospects are in your territory.

ANDERSON-PRICHARD
INDUSTRIAL
NAPHTHAS

C. H. Dresser, Director, Industrial Sales
Anderson-Prichard Oil Corp.
1000 Ramsey Tower, Okla. City, Okla.

..... Date

We are interested in the distribution of Industrial Naphthas in the following territory:

.....

.....

We are / are not Handling Naphtha now.

Please give us full information as to what we could reasonably expect in the above territory.

..... Name of Company

..... Address

..... Individual

"Agent," under which arrangement, it was deemed proper for the supplying company to furnish pumps, tanks and other equipment. When the NRA Code was adopted a broader prohibition on the loaning of equipment was included, but where loaned equipment was already installed it was allowed to remain and to be kept in good repair by the owner, even to the point of being replaced with equipment of the same kind.

Companies Supply Equipment

With the expiration of the code there has been considerable furnishing of new modern equipment. Thus far, however, such new equipment, which is very expensive, has been furnished principally to the more important dealer locations, and the question of who is to replace the equipment in the smaller dealer locations is still to be determined. With the exceptions which must apply to any generalization, we think it can be said, however, that few dealers have as yet bought very much equipment themselves; where necessary they are getting along with what was already installed, but we doubt if they are saving up much money to replace it when it finally wears out completely.

In addition to building stations of their own and of furnishing pumps and tanks to dealers, the major companies have supplied a substantial amount of cash to dealers to finance improvements and new construction. Such money usually is loaned to the dealer in connection with obtaining a mortgage and a long enough lease so that the major company is reasonably secure in getting its money repaid and in enjoying the dealer's increased business in the meantime.

We do not see, then, any evidence that the major companies are supplying any smaller proportion of the capital put into marketing expansion than they formerly did. If anything, the proportion as well as the amount supplied by major companies probably is increasing.

What Shall the Price Structure Be?

One of the questions concerning price structures which has been in considerable confusion is what shall be the relationship between the price to dealers and the price to jobbers. This is what is properly known as the jobber's margin, although that term often is loosely used to refer to the entire difference between the price to the jobber and the retail price, such difference, however, comprises both the jobber and the dealer margin. Of course most jobbers also have retail stations of their own, hence they are interested in dealer margins too, but not in their capacity as jobbers.

The question, then, is what is a proper differential between the price of gasoline to the jobber and the price to the dealer. This margin has varied as widely as the views concerning it. In certain places within the last year or so, it has been as low as 1.25 cents a gallon; in other places as high as 2.50 cents. During the latter part of the code period and following it, there was a tendency in certain areas for companies selling to jobbers to discontinue giving them full marginal protection when retail and dealer prices fell.

Instead of reducing their prices to jobbers by amounts corresponding with these retail and dealer price reductions, the supplying companies tended to bill the jobber primarily on the basis of wholesale refinery price plus an amount representing the transportation cost. In many cases where retail and dealer prices declined sharply, this had the effect of leaving a relatively narrow margin to the jobber, against which situation he has shown great resentment. In other localities jobbers' suppliers apparently continued to maintain a pretty constant spread between the price to dealers and the price to jobbers.

Jobbers' Margins

On the whole, the tendency seems to be for jobber margins to center around a figure of about 2 cents a gallon. This probably would mean a slight narrowing of the jobber margin as compared with the recent past, and in view of this and of the varying views and practices concerning jobber margins, it may be interesting to see what the jobber function consists of, what changes have occurred in it or are occurring, and how actual jobbing costs compare with the margin toward which we seem to be tending, of 2 cents a gallon.

Historically, the jobber function has been very clear, and whether it was performed by the jobber or by the major company, it was worthy of its hire, so to speak. Physically it consisted of receiving gasoline in tank car lots, unloading it into bulk station tankage and then rehauling it in small delivery trucks to retail dealers and to consumers taking tank truck delivery. All this involved a rather substantial evaporation and handling loss. A similar warehousing and delivery function was performed with respect to motor oil and other merchandise.

Usually the jobber function also included the furnishing of dispensing equipment to the dealer, keeping it painted and in good operating condition. It also included the maintenance of a selling force to solicit dealer and consumer business; and it included advertising and sales promotion activities. Finally, the function included the administrative, clerical, and collection work and the bad debt losses incidental to the performing of these selling, delivery and equipment-furnishing functions.

It might seem that the trackside station (that is, the cut-price station located on a railroad siding and receiving gasoline direct from tank cars) tended to eliminate the jobbing function, and so it did to a limited extent, but the trackside station type of marketing never was, we believe, a potential substitute for more than a small part of the conventional type of marketing, because the public as a whole could never have been satisfactorily served by trackside stations alone. The necessity of the jobbing function, as here described, being performed by someone, therefore, can hardly be controverted so far as the major part of the marketing job is concerned.

Jobbers Status Today

To what extent, then, have changes taken place in the nature of the jobber function, or in the expense of performing it, that might find reflection in the jobber margin? Let us look at the item of warehousing and delivery. Here have occurred and are occurring a number of changes which probably are rather far reaching. The old method of gasoline-out-of-tank-car-into-large - storage-out -into-small-inefficient-trucks is being supplanted in many instances by more modern methods. In the first place, most refinery suppliers today through additional refineries, exchanges with other refiners, or large water terminals have major sources of supply much nearer to their average jobber location than was the case a few years ago when the jobber or bulk plant operator received tank car shipments from relatively distant refinery points. There was little chance, then, of deliveries being made in transport trucks direct from the major sources of supply into bulk station storage or into retail or consumer storage. More and more, however, the latter type of deliveries are becoming prevalent.(1)

So far, refiners probably are not making many transport deliveries direct to the jobbers' customers, but so far as their own bulk and service station operations are concerned this is not at all unusual. In other words, the refiner performing his own jobbing function is tending more and more to short circuit the bulk station tankage entirely by making transport deliveries direct to retail outlets or large consumers, but even if the deliveries are made into bulk storage and rehauled to retail customers there are other savings. The transport deliveries are quicker, the supplier's main source of supply being near at hand, therefore the jobber does not need to maintain as large storage facilities as formerly.

Lower Delivery Costs

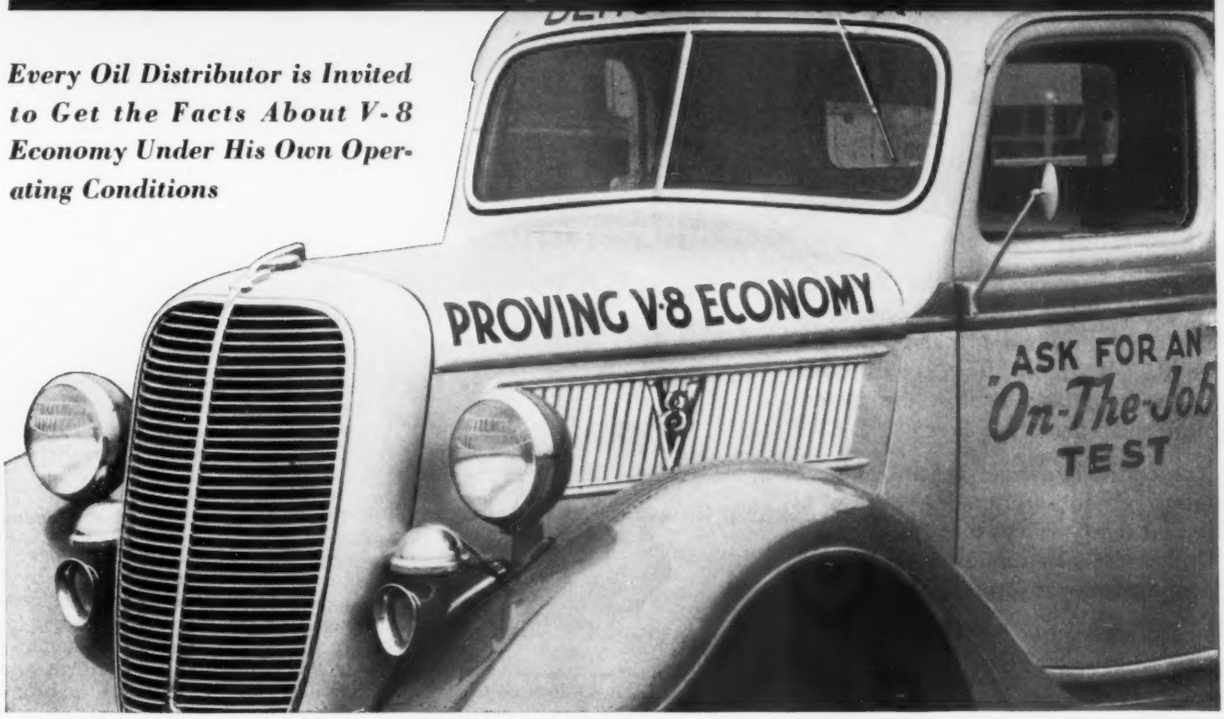
For one thing, the average transport unit holds only about half as much as a tank car and this half can be divided among the necessary grades since the truck tanks in any event have several separate compartments. The lower bulk station inventories made possible by smaller and better co-ordinated deliveries reduce the investment both in storage capacity and in stocks and lessen the expense of handling. In a few instances small jobbers are finding it possible to get along without a separate bulk station establishment by merely having some extra tank storage and warehousing capacity and office space at one of the principal service station locations.

So far as ordinary deliveries from bulk

(1) In some instances large dealers are banding together, equipping their stations with adequate gasoline storage for receiving full transport deliveries, and making arrangements for direct transport deliveries from some refinery or terminal, the dealers purchasing the gasoline at a reduced price and reselling it under a private brand name, meanwhile continuing to distribute major company brands on a regular dealer basis. We understand the Eastern States Trade Association is an organization of this kind, selling under the brand name, "Esta."

WINNING NEW OWNERS BY ACTUAL PROOF!

Every Oil Distributor is Invited to Get the Facts About V-8 Economy Under His Own Operating Conditions



WHEN you buy your next truck, what will you want to know . . . what it IS . . . or what it DOES? In either case, your Ford dealer is prepared to PROVE the outstanding advantages of Ford V-8 Trucks and Commercial Cars.

If you are interested in mechanical detail, your Ford dealer can give you the facts about any part . . . and tell you its effect on power, speed, economy, reliability, safety, comfort and appearance. And if you are interested in RESULTS, he will be glad to let you make your performance and economy tests under your own operating conditions.

This year, every type in the Ford V-8 Truck and Commercial Car line is available with an 85-horsepower engine improved to give new economy on heavy-duty and high-speed operations. And types commonly used for light delivery work are also available with a new 60-horsepower V-8 that is setting new records for high gasoline mileage. Ask your Ford dealer to demonstrate the engine best suited to your individual needs. Call him today and set a date for an "on-the-job" test.

Convenient, economical terms through the Authorized Ford Finance Plans of the Universal Credit Company.

FORD V-8 TRUCKS AND COMMERCIAL CARS

Load and Equipment Protected by S & J Internal Hydraulic Valves

Inside each compartment of the Pure Oil Company truck shown above, is one of the S. & J. Internal Hydraulic Valves pictured at the right. Valuable liquid and costly equipment is protected against the hazards of collision and accidental fires.

When contemplating new truck tanks or modernizing present equipment, always include internal safety valves that are approved by the Underwriters Laboratories. Prevention is the cheapest form of insurance.

Write for a copy of our book "Transporting Inflammable Liquids With Safety." It explains the advantage of S. & J. Internal Hydraulic Valves and illustrates the method of operation.

This is Type U, one of four different types of S. & J. Internal Hydraulic Valves. This type screws into the tank flange and the pipe line connection screws into the valve. Furnished in bronze or aluminum and in sizes from 1½" to 6". All sizes and types are listed by the Underwriters Laboratories.

SHAND & JURS COMPANY
BERKELEY, CALIFORNIA, U. S. A.

295 Madison Ave. New York | 601 Fannin St. Houston | 225 W. 11th St. Los Angeles

SHAND & JURS

FOR YOUR CONVENIENCE

NATIONAL PETROLEUM NEWS 1213 W. 3rd St., Cleveland, Ohio

I want "my own personal copy" of NATIONAL PETROLEUM NEWS each week. Send me the next 52 issues for which I enclose $2. (Canada $3; Foreign $3.50)

NAME .....

St.-Box ..... City-State .....

Company ..... Position .....

station storage to retail and consumer outlets are concerned, they also have become less expensive through the development of improved trucks. The modern truck is a light, speedy, trouble proof, and economical vehicle compared with the trucks of yesteryear, and through larger unloading and receiving lines, substitution of hose for bucket deliveries, much more rapid loading and unloading of trucks is possible. Unfortunately the small quantities which the average dealer can pay for at one time seriously reduce the economies of delivery which could be effected if the dealer could pay for larger deliveries or if larger deliveries could be made on account without the collection and bad debt costs nullifying the advantage.

As for the selling and contacting function, no great general change, we believe, has yet occurred, but there is a notable tendency to equip salesmen with panel delivery cars in which they can carry along and deliver many non-gasoline items, including canned oils, tires, batteries and accessories. Some who have tried it believe that this system makes for more efficient sales effort, less red tape of ordering, shipping, etc., and distinct economies in delivery.

So long as the practice continues of not furnishing new equipment to all dealers, there is a lessening in these costs to the jobber; on the other hand, the new computing pumps are more expensive than earlier types, so it is doubtful if any permanent lessening of expense to the jobber for furnishing equipment can be counted on.

Handles Branded Product

As for advertising, we believe it is fair to say that the expenditures by the average jobber have been considerably lessened by the fact that, whereas he formerly tended to distribute under his own brand name and did his own advertising, he now typically handles the branded product of some major company which does a great deal and in some cases practically all of the necessary advertising, thus relieving the jobber of more and more of such expenditures on his own account.

In some cases too, integrated companies have turned over to their jobbers dealer accounts previously obtained by the integrated companies, and even their own leased service stations formerly served direct through their own bulk station and selling organizations. In such case, of course, the jobber has been saved a considerable amount of selling expense, and usually the additional business tends to reduce unit delivery and other expenses all the way along the line.

What, then, is the cost of performing the present-day jobbing function? The writer in attempting to answer this has examined the expense figures in a number of cases for which figures could be obtained. One case was that of a small jobbing company handling about a million gallons of gasoline annually, received by transport delivery at a bulk station operated alongside and on a piece of property which was also used for a service station. The total expense in 1936, covering all the items enumerated above, was approximately 1.65 cents per gallon of gasoline sold.

Gasoline sales represented about 86 per

cent of the total sales, and if this same proportion of the expense be attributed to the handling of the gasoline, the expense per gallon was about 1.45 cents. In the case of another operation of about the same gasoline volume, the total expense was approximately 2.35 cents per gallon of gasoline handled. Here, however, gasoline sales accounted for only about 55 per cent of total sales due to the company's specializing in the sale of tires and other merchandise as well as gasoline and oil; thus assuming again the same per cent of total expense attributable to gasoline as its sales bore to the total, the gasoline expense per gallon of gasoline sold was 1.31 cents per gallon in 1936. In the case of a much larger jobber operation, the expense in 1935 attributable to gasoline, on the same basis as worked out above, was approximately 1.38 cents per gallon.

Retailing Not Included

It must be pointed out that, in all these cases, the expenses included were those incurred only in performing the jobbing function and did not include expenses incurred for the operation, ownership or maintenance of any retail stations—it did, of course, include the expense of delivery to such company owned retail stations. Interest on the company's own investment in jobbing operations was not included. At 5 per cent, the proportion of such interest cost attributable to gasoline handling was between one-tenth and one-eighth cent per gallon in the three cases mentioned above.

The foregoing figures should indicate the range of most jobber costs applicable to gasoline. Of course there are always extremes at both ends, but prices and margins cannot cover all of the extremes. It seems fair to conclude that a well-conducted jobber enterprise, handling a brand of good quality and acceptance and taking reasonable advantage of opportunities for saving, should be able to perform the jobbing function and have a reasonable profit left out of a margin of 2 cents a gallon between the dealer and jobber price. We believe that in many instances the higher costs of which jobbers complain have been really incurred in the operation of their retail stations, many of which probably are costing them a substantial amount in the way of net rent even though leased out to dealers.

Some people, of course, might contend that a jobber, in order to carry on successfully, must own or control some retail stations and incur some losses in the way of net rental expenses and that such expenses should properly be considered a part of the jobber function. Of course it is also true that in some cases jobbers are giving secret price concessions to their customers, thus using up part of the margin in question—these, of course, are price reductions and not marketing costs.

Price Structure for Consumers on Tank Truck Deliveries

Another subject about which there is much conflicting thought at the present time is as to the relationships which should exist between dealer and jobber prices and the prices to various types of consumers taking delivery by tank truck or transport. One school of thought which is urged by Congressman Patman, for example, is that it is unfair for a refiner to sell direct to a large consumer, taking tank truck or transport deliveries,

—Says
SUNNY LUMENS
the
Goodrich Man
★

"JUST off the press—this brand new catalog prepared specifically for the oil industry. It contains full 40 pages of illuminating information with lighting distribution charts, suggestions, typical applications of equipment for gasoline service stations, interiors, lifts, signs, parking areas, etc."

Write for your copy of this new catalog.

It's time now to start planning better illumination for next season. From the ingenious Goodrich Liftlites to all styles of floodlighting equipment, you find everything to help you make your job an easier one. It's yours for the asking. A post card will bring it to you. Ask for catalog No. 62.

GOODRICH
ELECTRIC COMPANY
OFFICES IN ALL PRINCIPAL CITIES

General Offices and Factory:
2905 NORTH OAKLEY AVENUE CHICAGO, ILLINOIS

What you want to know about BONUS LOAD savings

Use of Alcoa Aluminum by Davis Welding & Mfg. Co. cut weight on this tank and trailer unit from 11,185 lbs. to 6535 lbs. making possible 700 extra gallons payload for the operator, Republic Refining Co.

● This truck and semitrailer unit carries 700 *extra* gallons of gasoline at no cost.

That's the Bonus Load. You can haul it on your trucks, extra load at no cost, by cashing in on the light, strong alloys of Alcoa Aluminum. With bodies built of Aluminum, trucks carry less deadweight, more payload. Naturally the Bonus Load doesn't increase operating cost—at the same time it is large enough to make the Aluminum body return a net profit within a few months.

Your satisfaction with Aluminum construction will be increased by two other factors: The resistance to corrosion of Alcoa Aluminum protects the purity of the product hauled. Keeping the paint job attractive is less expensive when the metal underneath is rust-proof Aluminum.

You can have these advantages at reasonable first cost. Our engineers have co-operated with builders in developing standard shapes and forms of Alcoa Aluminum which make construction efficient and inexpensive. Leading body builders can use Aluminum to meet your specifications. Ask us to send you the free handbook, "*Alcoa Aluminum for Truck Bodies.*" ALUMINUM COMPANY OF AMERICA, 2190 Gulf Building, Pittsburgh, Pennsylvania.

ALCOA ALUMINUM

at a price below that which is charged to a dealer taking tank truck delivery. However, it is maintained that the price to a commercial consumer, even a very large one, ought to be enough above the price to jobbers so that the latter would have a chance of selling such accounts.

In considering these questions, let us look first at the extreme case, that is the very large commercial consumer taking, let us say, transport deliveries of the most efficient sort. Such deliveries ordinarily can be made at less cost to the refiner than if he were to ship the material out in a tank car at the prevailing rail freight rate. And if a transport delivery is made direct from the refinery or bulk terminal to the account there is then no bulk station handling or any delivery in small retail trucks, thus the savings in delivery costs are likely to be very substantial.

The consumer of this type has little or no interest in the advertising done by the refiner; he intends to use, and not resell, the gasoline and therefore he has no interest in the refiner spending money to interest the ordinary passenger car owner in the merits of a particular brand of gasoline. He is interested only in price, specifications, and service rendered. Furthermore, he need not ordinarily be furnished with any elaborate set-up of storage and dispensing equipment. In many cases he will have his own equipment of this sort and the style element embodied in the latest computing pumps and whatnot is not important.

The initial selling expense in connection with such business usually is low on a per gallon basis, and it is not necessary for a salesman to keep on visiting such a consumer regularly in order to acquaint him with sales promotion material and the like which the refining company has developed in order to promote the retail sales of its products. Finally, the credit and collection problem and cost in connection with a large commercial consumer is likely to be less of a factor than in the case of the ordinary dealer.

Tank Wagon Consumers

Viewed on the basis of these factors it is difficult to see why the prices to such consumers must not necessarily be considerably below the price to dealers. On the other hand, few if any of the savings just mentioned apply in the case of a small tank truck delivery to an out of the way consumer, where the gasoline may have to be carried in buckets from the tank truck into a barn or garage. For such a delivery the dealer price would seem to be rather too low if anything.

It is difficult, therefore, to see how oil companies can escape the necessity of having a price structure for consumers taking tank truck deliveries which, depending on quantity and method of delivery involved, will include prices ranging from somewhere near the tank car or jobber price up to or above the dealer price.

How Much Rationalization Machinery In the Way of Codes and Legislation?

In 1929 the industry, after much discussion, adopted a voluntary code for marketing practices which was approved by the Federal Trade Commission. This code, of course, was supplanted in 1933 by the NRA Code. After the latter was declared invalid there was some doubt as to the status of the old Trade Commission code. Nothing much was done by the industry, however, to make the old code a living reality, and the main effort of those who have been particularly interested in code activities was to get a new code approved by the Federal Trade Commission.

Unlike the conditions prevailing when the original voluntary code was adopted, however, various groups and associations have now developed within the marketing end of the industry, causing greater difficulty in arriving at any unanimity of opinion as to what a code should contain. Under these conditions the Federal Trade Commission seems to be taking its time in making a decision as to a new code.

There are, of course, other measures under consideration in various quarters which might be termed rationalization efforts. One or two state legislatures are reported investigating the advisability of declaring oil marketing to be a public utility, under which the prices and other matters would be regulated. One state (North Carolina) is reported considering operating a state owned gasoline terminal. Further development of the Robinson-Patman type of federal legislation also is reported under consideration, including proposals to prohibit companies supplying resellers from selling direct to consumers and to divorce manufacturing from retailing. Most of these proposals, we believe, represent an attempt both at stabilization of marketing activities and of penalizing or handicapping large scale operations.

While many of the proposals would apply to industry generally, it would seem that the oil business is being singled out for special consideration in a number of these proposals. Probably this reflects to some extent the unsettled conditions in respect to gasoline prices, price structures, and margins which have prevailed in various parts of the country during the last two or three years and the efforts of those adversely affected by these conditions to gain relief through legislative means. It seems to the writer that perhaps the oil industry has not fully awakened to the vested interests on the part of jobbers and dealers which have been created through the tremendous marketing expansion which took place under the wide margins of former years. Any rapid change in price structure and margin conditions, therefore, which may seem economically sound also must be tested from the standpoint of its social and political wisdom lest the measures intended to embody the concept of free competition tend instead to destroy it.

Could Be Helpful

We do not know, of course, to what extent a code of marketing practices would be helpful in the solution of these problems; viewing the matter broadly, however, it does appear that it would be helpful if there were something in the way of a code which could provide an opportunity for all groups in the industry, who are interested, to discuss these matters in a semi-official way and try to arrive at some definition of the basic factors involved in price structures and other marketing problems and to give renewed support to the policy of publicly posted as contrasted with secret prices.

This should not be viewed as an attempt to freeze the price structure into some given mold of margins, prices or practices, but rather the means of enabling the industry to adjust its operations and customs to changing conditions in a more satisfactory and graceful manner, all things considered, than is likely to be possible without some such machinery for rationalization if we please to call it that.

What Are the Main Urges to Marketing Expansion?

It is commonplace to point, and often with scorn, at the obvious over-expansion of marketing facilities in the oil business. Sometimes such over-expansion is attributed purely to the stupidity or overzealousness of marketing executives. We think this explanation is patently insufficient, since oil men are no different than other men.

We, ourselves, have suggested that, in the developmental stage of the gasoline business, the margins were so wide as to attract a great deal of capital from independent marketers, who built individual stations or went into the jobbing business or both. The wide margins of that period in turn seemed attributable to the fact that demand for gasoline distribution was advancing more rapidly than it was being adequately supplied. But this reason long since has ceased to exist, for not only are there now more than enough

Price Structure for Consumers Buying From Tank Wagon

● A section of the accompanying article is devoted to the prices which should logically be paid by consumers taking tank truck deliveries. Several arguments are presented why the oil company's price to the large consumer of this type might be below the price to the dealer; among them the lower delivery cost to such consumers, the fact they do not have to be supplied with tanks and dispensing equipment of the latest mode, that the oil company does not have to carry on an extensive advertising program to motorists in connection with such sales and so on. The author sums his discussion on this section of his discussion as follows:

"It is difficult, therefore, to see how oil companies can escape the necessity of having a price structure for consumers taking tank truck deliveries, which depending on quantity and method of delivery involved, will include prices ranging from somewhere near the tank car or jobber price up to or above the dealer price."

outlets for gasoline but the wide margins of former years have pretty much vanished.

The pressure of crude oil on the part of production companies who were not certain that they could sell the oil as such at satisfactory prices and who, therefore, felt it necessary to go into refining and marketing also has been mentioned. Undoubtedly this crude oil pressure was an important factor in former years, but it is doubtful whether under present-day production control it can be said that many production companies are seriously concerned about the ability to dispose of their crude oil as such at satisfactory prices.

The pressure of crude, therefore, does not appear to answer entirely the continuing expansion of retail marketing facilities, which, as we have tried to show, is now being so largely financed by the integrated companies. It is clear, we believe, that not many of these integrated companies are making *marketing profits as such* on their present retail operations or investments, and we doubt if they expect to do so on the new retailing facilities they are building or financing.

The obtaining of nation-wide distribution to improve the brand name and to obtain fuller advantage of national advertising programs is another reason sometimes suggested, but it would seem to fall somewhat short of being a satisfactory motive for investing more money in an already unprofitable type of operation.

The High Revenue Relative to Extra Cost of the Additional Gallon as a Motive

We would like to suggest another motive, which has sometimes been mentioned but which we believe deserves more detailed consideration than it has gotten as an explanation of this over-expansion phenomenon. We refer to the low cost of getting the extra gallon of gasoline (or other oil products) to the point of sale, and therefore its great attractiveness to an integrated company as a whole. A consideration of the extra expenses which are incurred by an integrated company in getting this extra gallon to market indicates that such expenses are so low, relative to the average expenses per gallon or to the aggregate expenses incurred serially by non-integrated branches of the industry, as to make these last gallons extremely profitable to the integrated company.

Let us look first at crude oil production. So long as there is flush production, being artificially restrained by production control machinery, it means, of course, that companies having production in flush areas could produce extra barrels of crude at a very nominal cost. It does not follow, of course, that the allowable production for a particular company would be increased by its being able to use a larger volume of oil itself, but we believe there would be some general tendency in this direction. At any rate, the more oil products a large company can sell and the more crude it can use, the larger scale its crude production operations can be, and a study of crude oil costs indicates that on the whole the larger companies have lower costs than the smaller companies. The Tariff Commission study of crude oil costs for the 4-year period 1927 to 1930, grouped the figures according to large companies and small companies. The costs for the two groups in the principal oil states and for the U. S. as a whole are shown in the figures below:(1)

Total Cost of Crude Oil per Barrel
(1927-1930)

	Small Cos.	Large Cos.
California	$1.05	$0.75
Oklahoma	1.23	1.18
Kansas	1.37	1.40
Texas	1.16	0.93
Total U. S.	1.29	1.04

An analysis of the costs of production, by items of expense, also indicates that by far the greater part of the expense is indirect, especially in flush fields such as East and West Texas, but also in settled areas such as Kansas. (2)

	East Texas Cost of Production	East Texas % of Total	West Texas Cost of Production	West Texas % of Total	Kansas Cost of Production	Kansas % of Total
Direct Operating Expense (net less sale of gas, etc.)	$0.072	12.6	$0.121	19.6	$0.228	23.1
Indirect Operating Expense:						
Depletion	0.035		0.041		0.079	
Depreciation	0.066		0.090		0.206	
Amortization of Intangible Development Costs	0.052		0.024		0.066	
General Overhead and Administrative	0.266		0.290		0.317	
Interest on Invested Capital	0.077		0.052		0.091	
Total Indirect	0.496	87.4	0.497	80.4	0.759	76.9
Total Cost Including Interest	$0.568		$0.618		$0.987	

To what extent an integrated company can regard additional gasoline sales as a means of achieving lower over-all crude costs, and may, therefore, consciously or unconsciously attribute a substantially lower than average crude cost to additional gasoline sales, we do not know. Obviously the answer depends upon the way in which the integrated company in question regards the production control machinery and its ability to sell extra crude production as such at a satisfactory price, and its opinion as to whether its allowable production would or would not be increased by the fact that it had additional use for crude in its own operations. We believe it is safe to conclude, however, that to some extent some companies are influenced in the direction suggested.

Incremental Pipeline Costs

It is in the pipeline department that the low incremental cost theory finds its best support, for within the available capacity of a pipeline the extra cost of pushing through another barrel of crude oil or gasoline is an almost insignificant consideration. A study of over-all pipeline costs, as reported to the Interstate Commerce Commission by most pipeline companies, shows practically no relationship between total costs reported and volume of oil transported. In some cases where volume has increased the total costs have even gone down. We do not mean to suggest that costs are not increased by additional throughput, for of course they are, but it would appear that other items are more important in determining total expense than the throughput, within reasonable limits.

The reason, of course, is plain. The only extra expense of any consequence is the extra pumping cost. A study of a number of the expense reports submitted to the ICC indicates that the direct pumping cost is less than 0.5 cent per barrel per 100 miles. For a movement of, say, 700 miles, such, for example, as from Oklahoma to the Chicago area, the extra pumping cost would be only about 3.5 cents per barrel, or less than one-tenth of a cent per gallon.

It is interesting to compare this marginal or incremental cost on the last gallon with other costs and rates. A study of the costs reported by some of the major pipelines running from the Mid-Continent to Chicago indicates that the average pipeline cost per barrel for this movement is between 15 and 20 cents a barrel. The pipeline tariff which would be paid by an independent refiner on the last unit which he shipped is about 40 cents a barrel, or approximately 1 cent a gallon on crude oil, and the pipeline tariff on *gasoline* from Oklahoma points to Chicago is now, we believe, $1.025 a barrel, or about 2.35c per gallon. The rail rate on gasoline from Oklahoma points to Chicago is about the same, and

(1) Tables 86-90 U. S. Tariff Com. Report No. 30, Second Series.

(2) From Dept. of Interior Study of Crude Oil Costs 1931-34.

Urge to Marketing Expansion

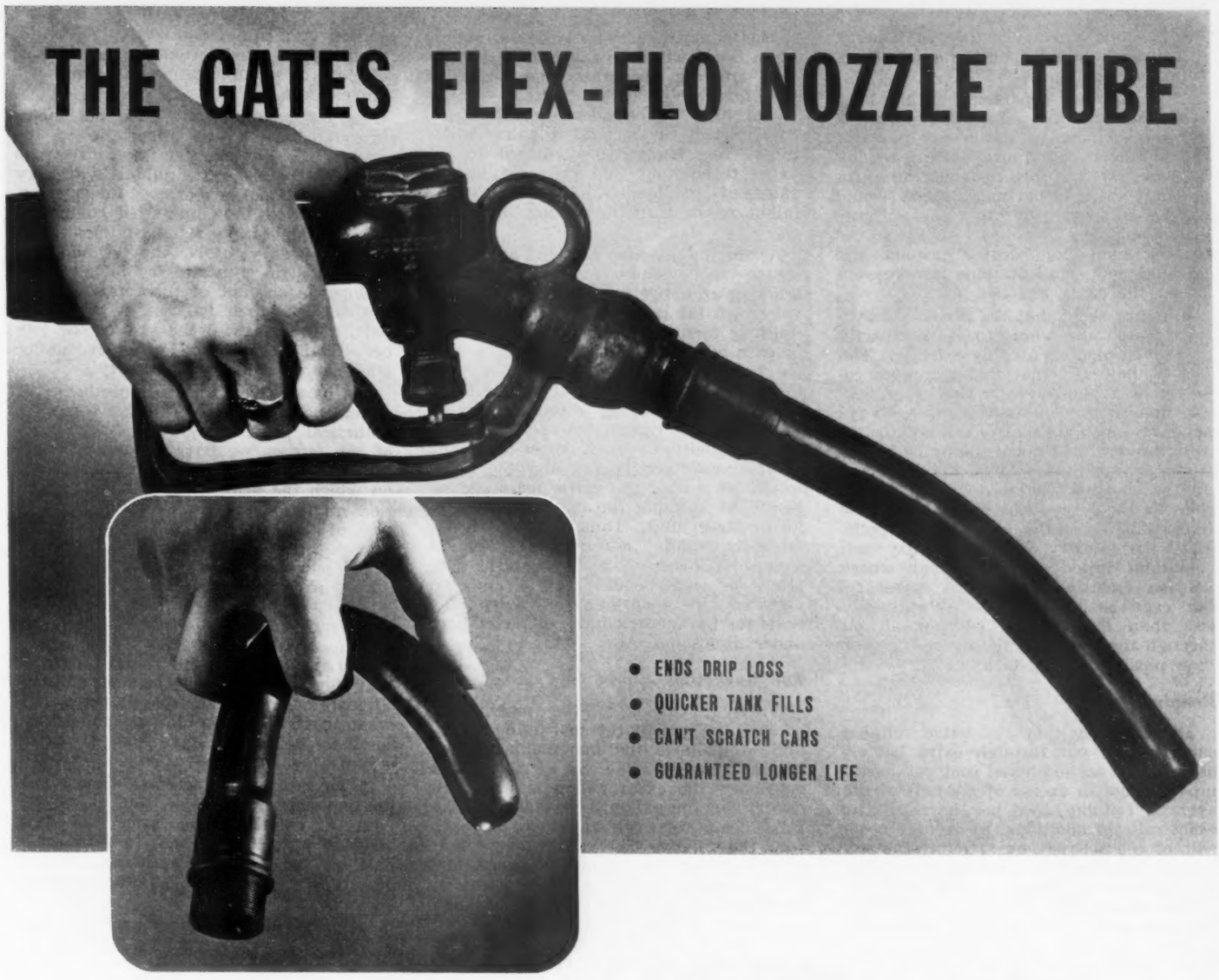
The reason most frequently assigned to the over-expansion of marketing facilities in the oil business—the stupidity or over-zealousness of marketing executives—is patently insufficient, believes Author Swensrud of the accompanying article.

He brings out his ideas of the reasons why the larger oil companies are expanding their marketing facilities today, eliminating those common factors which have led to such expansion in the past.

Principal among these reasons, Mr. Swensrud believes, is the relatively low cost of getting the *extra* gallon of gasoline to the point of sale for the integrated companies. Contributing to this is the lower production cost per barrel of crude for the large companies, as their volume of production is increased; the lower transportation costs for additional volumes of crude, particularly where pipelines are used; lower refining costs for large volumes of crude and so on.

The urge for the extra unit of sale is greater in the oil industry than in many lines of business, Mr. Swensrud believes, the greater degree of integration in the oil industry making it possible for the integrated company desiring to obtain extra gallons to reach directly into the market for them by creating additional retail outlets.

THE GATES FLEX-FLO NOZZLE TUBE



is made of oilproof "THIOKOL" rubber

Compare this "Thiokol" gasoline hose nozzle tube with any metal tube in the service and these four facts about Flex-Flo will urge *you*–as they have urged petroleum operators everywhere–to try the gasoline hose nozzle just developed by the Gates Rubber Company:

Its long life–guaranteed to be longer than any metal tube in the service–which means freedom from breakage at any point, no leakage and extreme resistance to wear.

Its smooth, fast discharge "Thiokol" bore that enables attendant to open up the meter valve to the limit for quickest tank fills . . . and which prevents dripping of gasoline after the nozzle is turned off.

Its *real* flexibility that enables attendant to get into "curved elbow" gasoline tank spouts and prevent flow of air out past nozzle tip, and consequent loss of gas.

Its soft surface that eliminates possibility of scratching fenders and fittings on customer's car, and silences entire filling operation.

Resilience, strength and resistance to abrasion are the properties common to natural rubber and "Thiokol". But where natural rubber rapidly fails in service upon exposure to heat, sunlight, oils, greases and acids – "Thiokol" synthetic rubber stands up. This has led to the use of "Thiokol" on many petroleum industry products. For full information, write.

THIOKOL Corporation

THIOKOL

YARDVILLE NEW JERSEY

the gasoline price structure in general, of course, is based upon the costs of rail transportation.

If in no other department of the business than in the pipeline department did the element of low extra cost for the additional gallon apply, it can readily be seen that the low costs of the extra gallon in this department alone would provide a strong incentive for an integrated company owning its own pipelines to seek additional sales of gasoline and to build new retail stations if necessary to get the extra gallons.

It might seem that the above observations would apply only to extra capacity in a given pipeline already existing. The fact is, however, that the maximum capacity of a pipeline is a somewhat flexible quantity for there are several ways in which pipeline capacity can be stepped up (through additional pumping facilities or by adding additional lines for part of the distance between pumping stations) without requiring a conpletely new line. Of course the extra costs applicable to the extra business under such conditions would be higher than where no additional capacity were necessary, but even so it would be substantially less than the average cost of all oil through the line, and, of course, far less than pipeline or rail tariff rates.

Refining Aspect

The company that has extra refining capacity can put through extra barrels of crude at an additional cost per barrel probably not in excess of one-half of the average refining cost per barrel. The exact ratio of additional to average costs will, of course, vary on account of many factors, including the question of whether royalties are paid, and if so, whether as an over-all amount or an amount per barrel processed. Probably most integrated refiners, however, would not be paying much royalty on a per barrel basis.

The main expenses incurred, in refining extra crude within available capacity, are fuel, treating chemicals, and tetraethyl lead for gasoline, if so treated. To this would have to be added something to cover extra labor and repairs which might reasonably be attributed to the extra throughput and the possible impairment of by-product prices which might result from increasing their supply.

As for the question of being able to increase the refining capacity without building an entirely new unit, this would vary with the question of what were the limiting factors. Flexibility of capacity or ease of increasing it, however, would, we believe, be somewhat smaller than in the case of pipelines. It is true, however, that in building a refinery in the first place the capital cost per barrel of extra capacity is much lower than the average cost per barrel, and the same would be true of the extra operating expense for running the extra throughput in the larger unit. Thus there is a temptation in building a refinery to make it somewhat larger than the business definitely in sight would require and the extra capacity then, in turn, provides the basis for the incremental cost factor here under discussion.

The Marketing Aspect

When it comes to the jobbing or wholesaling end of the marketing operation, we believe the incremental factor is relatively low. The cost of selling and delivering the extra gallon is less than on the average gallon to be sure, but the difference is relatively small as compared with the relative cost of the extra unit in the pipeline or refining departments. For, generally speaking, distributors do not maintain more delivery trucks than they need to take care of the existing business, nor can additional accounts usually be added without directly adding to selling and equipment costs. The chief economy, therefore, would be in the small element of administrative and warehousing expense.

As for retailing, the marginal factor undoubtedly is very important—to the retailer. There are few stations which could not handle extra gallons with very little additional expense. Considering, however, that few integrated companies are still operating retail stations on a straight salary basis, they would not have much incentive to try to get extra gallons on account of the retailing margin as such—their interest, for the most part, now ends with the sale to the jobber, retailer, or other customer taking tank car or tank truck delivery.

Let us see what the cost of the extra gallon, delivered to a dealer at some hypothetical point, on the basis of some of the factors we have been discussing, might be as compared with the full costs on which the price at the point in question might be based. For a determination of the latter we may take the refinery price in Oklahoma of regular grade gasoline, which let us assume is 5.75 cents a gallon; add to it a freight item of, say, 2.30 cents and a wholesaling margin of, say, 2 cents. These items add up to a total of 10.05 cents a gallon. Let us assume, for round numbers, that the price to dealers at such point is 10 cents a gallon, exclusive of taxes. At what cost, then, could an integrated company deliver to such point an extra gallon of gasoline?

If we assume no incremental cost factor in respect to crude but start out with a posted crude price of, say, $1.10 a barrel and add to this one-half of the ordinary gathering charge on crude and one-half of the process-

(1) Based on 1936 figures for refinery costs, as shown in Footnote on Page 3, adjusted for lower gathering and refining costs as described above.

Some idea of the size of this "station" can be gained from the display of bicycles in the ribbon-like, second floor show case extending across the front. Washing machines, refrigerators, sporting goods and automotive supplies are sold, as well as petroleum products. The building, containing 33,000 square feet, is located on Grand River Blvd., in Detroit. It is porcelain enamel construction, blue and cream in colors, and is operated by Ned's Auto Supply Co. (Photo courtesy Austin Co.)

fits your needs LIKE A GLOVE

"Just what we need", "Increases gallonage and profits", "Fits our requirements like a glove", say Globe home owned Jobbers of the Globe Plan for the Independent. Globe knows the Jobber's problems. Globe's sales-producing program is the answer. It promotes the Jobber in his own territory, popularizes him—makes him stand out. It will be to your advantage to get the complete story. Write, wire or phone for the facts. Let us show you the way to increased gallonage.

THE GLOBE OIL & REFINING CO.

PRODUCERS AND REFINERS

SALES OFFICES
UNION NATIONAL BANK BLDG., WICHITA, KANS.
59 EAST VAN BUREN STREET, CHICAGO, ILL.
2424 UNIVERSITY, S. E., MINNEAPOLIS, MINN.

REFINERIES
McPHERSON, KANSAS
BLACKWELL, OKLAHOMA
LEMONT, ILLINOIS

Globe GASOLINE

KEEP ROLLIN' WITH GLOBE

The Accepted Standards of Pennsylvania Bright Stock Excellence Since 1900

◆

H-M and L-M Oils Are Made Solely By

THE CONEWANGO REFINING CO.

Warren, Pa.

ing cost at the refinery, we might then assume a basic gasoline cost in Oklahoma of about 4.20 cents per gallon. (1). If to this we add the extra pipeline cost for transporting this extra gallon, i.e., about 5 cents a barrel, or, say, 0.15 cent per gallon, and if to this we add, say, 1.50 cents as the extra wholesaling cost on this extra gallon, we arrive at a total of 5.85 cents a gallon, or 4.15 cents under the 10-cent price. Should we use as a starting point the average crude oil *cost* of the integrated company instead of the crude oil *price* then probably we could deduct at least another cent from the delivered cost of the extra gallon, because such average *cost* of crude oil production, we believe, would be more than 20 cents a barrel under the present selling price of crude.

Tremendous Temptation

From the foregoing figures it would appear that there is a tremendous temptation upon the integrated company to obtain some of these low cost extra gallons, even though the final realization for them had to be somewhat lower than on the average sales. Of course, if the extra gallons were sold at an outrightly lower price in such a way as to break down the entire price structure on all the gallons, the desirability of the extra gallons would be greatly reduced. It would seem logical then to expect to see extra gallons striven for in two ways. First by actual *price* concessions in areas of the market where low prices were less likely to infect the whole market. Sales direct to large consumers, including governmental units and public utilities, would seem to come nearest to fulfilling these requirements, and it is indeed in connection with such sales, we believe, that low prices have been most prevalent.

On the other hand, it would seem logical, in areas of the market where cut prices tend rapidly to infect the whole structure, to expect to use the extra gallon striven for through the creation of additional retail outlets rather than cut prices, and here again the facts seem to bear out the logic.

It may be questioned, however, whether the urge for the extra unit of sale is any greater in the oil business than in other industries. We believe it is, for a number of reasons. In the first place, the degree of integration is greater in the oil business, we believe, than in practically any other. Therefore, an integrated company desiring to obtain extra gallons on account of low incremental pipeline or refining costs on such extra gallons can reach directly into the market for them by creating additional retail outlets.

In the second place, we believe the ratio of direct to indirect costs is smaller in several departments of the oil business than is generally true in industry. The best example of this is, of course, in the pipeline division. The ratio of direct cost to total cost is low, we believe, in most transportation operations. This is well-known to be the case as to railroads, for example, and it is especially notable in the case of taxicabs where the cost of hauling an extra passenger evidently is presumed to be nothing flat. With the exception of certain of the heavy goods industries, such as iron ore, the oil industry is about the only one, however, in which integrated companies within the business own the principal means of transporting its products. In industries where the transportation is performed by an outside agency, the cost to the shipper is, of course, the same on the last unit as on the first. The ownership of shippers by railroads was long ago eliminated, of course, by the Commodities Clause of the Interstate Commerce Commission Act.

If these observations as to the economics of the extra gallon are correct, then we believe that this factor may be put down as a very influential one in helping to explain first, some of the price phenomena of our industry and second, the seemingly insatiable expansion of retail outlets in the oil business.

New York Transit

NEW YORK, Feb. 22.—Keener competition, despite a higher rate of operation, resulted in a decline in net income of the New York Transit Co. in 1936, as compared with 1935, according to the report issued by D. S. Bushness, president.

The company's net income for 1936 was $34,048, after all charges, equal to 34 cents a share on 100,000 shares of capital stock (par $5) outstanding. In the previous year, its income was $52,723, after all charges, equal to 53 cents a share on the same number of shares.

COLUMBIA, S. C., Feb. 22.—Gasoline taxes were paid on 14,562,303 gallons of gasoline in South Carolina during January, 1937, as compared with 11,132,000 gallons in January, 1936.

Heads Barnsdall Division

KANSAS CITY, Mo., Feb. 22.—Robert A. Peek, formerly assistant manager of the Iowa-Nebraska division of the Barnsdall Refining Corp., has been promoted to manager of the Missouri-Kansas division, with headquarters at Kansas City.

Mr. Peek has been with the Barnsdall since 1928. Before that, he was 10 years with the Pierce Petroleum Co. at Oklahoma City. A. V. McMurry has been appointed city agent for the company.

Robert A. Peek

Dear Editor:

This letter by Sam A. Weissenburger on "The Established Principles of Retail Merchandising" is certainly a knockout.

He has approached this, not from the side of the oil man, but from the side of the merchandising.

Tell Mr. Weissenburger my hat is off to him because he is able to tell these fellows in trenchant English what in our feeble way we could only hint at, because the rugged individualist running a filling station, who believes that the toilet ought to stink or else the people wouldn't know it was a toilet, is one of our customers and we couldn't bear down on him too heavy.

I think with Mr. Weissenburger's talent an article devoted to toilets alone would make a big hit, because the stock answer of every Independent is: "People are dirty, you would just be surprised at how filthy they are when they use my toilet, both men and women." That is the stock answer to account for the laziness of the man running the filling station.

If they can be made to see that clean toilets and clean restrooms meant more customers—that all that was needed was elbow grease—it sure would accomplish a lot for the independent industry, which independent compounders like us have to serve.

Compounder.

National Oil Products

CLEVELAND, Feb. 22.—National Oil Products Co. earned $559,097, after all charges including federal surtax on undistributed earnings, for the year 1936. This is equal to $3.30 a share on 169,128 shares (par $4) of common stock outstanding.

Net profit in 1935 was $337,949 or $2.16 a share, on 146,120 shares of stock outstanding.

Quaker State Profits Up

OIL CITY, Feb. 22.—Quaker State Oil Refg. Corp.'s preliminary statement of earnings for the year 1936 shows net income of $1,145,301, after all charges, equal to $1.23 a share on 927,305 shares (par $10) of capital stock.

In 1935 the company reported earnings of $914,567 or $1.01 a share on 902,305 shares of capital stock.

Simms Petroleum

NEW YORK, Feb. 22.—Simms Petroleum Co. (in liquidation) reports net deficit for year ended Dec. 31, 1936, of $29,383, atfer all charges. This compares with loss of $2498 the previous year.

TANK FIRES *can be* PREVENTED

● Tank fires, whether they result from lightning, or exposure fires, sparks, etc., can be avoided with Oceco Flame Arrestors—they have an unparalleled record. Tests conducted over a period of years, by the Underwriters Laboratories, Inc., have proved that these arrestors stop flame. But of more importance is their service record! Oceco Flame Arrestors are being used in the United States and most foreign countries. They are protecting more than 250,000,000 bbls. of tankage and yet—even when located in the middle of a blazing tank farm—

NO TIGHT TANK EQUIPPED WITH AN OCECO FLAME ARRESTOR HAS EVER BEEN LOST BY FIRE.

There is a size and type Oceco Flame Arrestor for every tank requirement. Complete details and a fully descriptive catalog will be sent on request. Ask us what we have done for others.

OCECO *Fittings*

THE JOHNSTON & JENNINGS CO.
OCECO DIVISION
883 Addison Road • Cleveland, Ohio
Engineering and Sales Services: NEW YORK • CHICAGO • PITTSBURGH
BEAUMONT, TEXAS • TULSA, OKLAHOMA • LOS ANGELES • OAKLAND, CALIF.

Specify OCECO Fittings • • Your Tanks Deserve the Best

VENTS

SWING LINES

GAUGES METERS

FLAME ARRESTORS

Representative Pettengill, of Indiana, who spoke before the American Institute of Mining and Metallurgical Engineers, in New York, on the subject, "The Survival of Free Enterprise in the Petroleum Industry". He was a member of the Congressional committee which investigated the oil industry three years ago and is author of the book, "Hot Oil, the Problem of Petroleum"

The Future of Free Enterprise In the Petroleum Industry

By Congressman
SAMUEL B. PETTENGILL

(Presented Before Petroleum Division, American Institute of Mining and Metallurgical Engineers, New York, Feb. 18)

THE oil industry, a natural resource industry, stands in the front line today in the attacks on our existing economic system established on the basis of individual enterprise and competition, and will certainly be called upon, within a few years, to withstand efforts to bring it under close government regulation, Congressman Pettengill brings out in his address published on this and accompanying pages.

If the oil industry and a few somewhat similar lines of business fail to withstand this attack, he goes on to say, no kind of free enterprise can then be secure from increasing government regulation and the controlling force in our nation will be a political autocracy.

This author has a far better knowledge of the oil industry than most men in public office, through his study of its problems as a member of the Cole congressional committee which investigated the industry some three years ago. He advocates the measures by which the oil industry itself may bulwark itself against this increasing pressure for greater government regulations.

First, he believes the scientific basis should be established for showing the courts and legislatures that changes in the so-called Rule of Capture of oil production will better serve not only the surface landowner but also the long future of this country.

As an alternative to federal control, he advocates state compacts, pointing to the success of the present interstate compact among several of the principal oil producing states. He also cites uniform state laws as an alternative to federal control, with its handcuffing of the states.

THE future of free enterprise in the petroleum industry is both similar to and different from the future of free enterprise in industry generally. Let us discuss it first from its own peculiar standpoint and then take up the future of the free enterprise of which petroleum is but one important part.

The difference, of course, arises from the fact that the petroleum industry is based upon a limited and hence exhaustible natural resource of vital importance to society. Due to the public interest in petroleum because of these characteristics it may be that the industry is more vulnerable to the attack of state socialism than other industries without these distinctive features. And not only is it more vulnerable when the attack comes, but is likely that the attack will come at an earlier date than in other industries.

As a natural resource industry it may be said that it is in the front line trenches of private enterprise along with recognized public utilities such as railroads and electricity. For these three, as business privately owned, the zero hour may not be far distant, say within ten years. If they withstand the attack, all enterprise will be their debtor. If they fail, nothing now in private hands can then feel secure. For when the bull buffalo goes down what happens to the rest of the herd?

I shall not pause here to argue the pros and cons of free enterprise as against state socialism, nor of democracy as opposed to fascism or communism.

Hand In Hand

It is enough to say that free enterprise and free political institutions go hand in hand; that the latter cannot survive in the absence of the former. The death of the latter will be voted by the bene-

TRADE YALE MARK

QUIET!

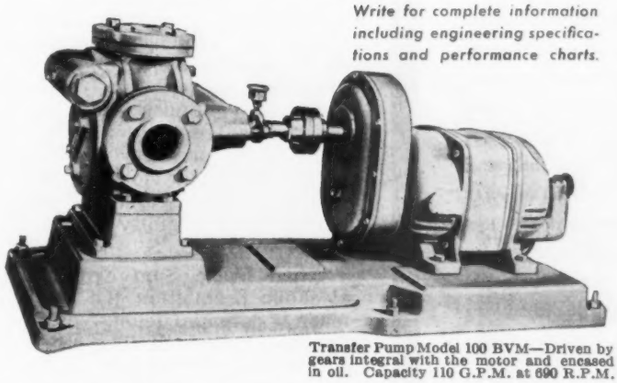
TRI-ROTOR PUMPS

OPERATE SILENTLY

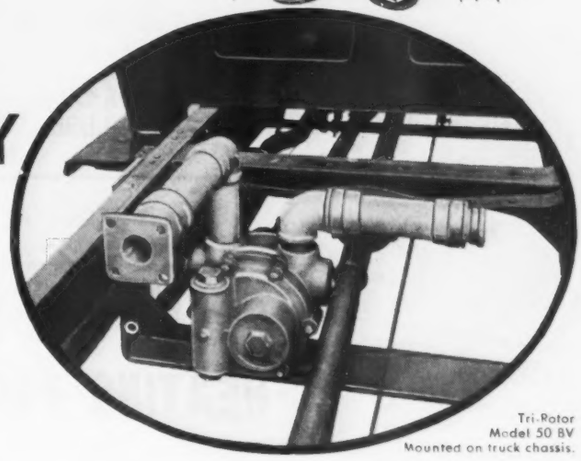
THE elimination of the by-pass and the development of other exclusive features of design and construction contribute *silent* action as well as more efficient and economical operation to TRI-ROTOR PUMPS. You can deliver oil even in a hospital zone without the slightest fear of causing annoyance to anyone.

There is no other pumping unit like TRI-ROTOR. It is the safest, most efficient, most economical pump with which you can equip your trucks or bulk plant.

Write for complete information including engineering specifications and performance charts.



Transfer Pump Model 100 BVM—Driven by gears integral with the motor and encased in oil. Capacity 110 G.P.M. at 690 R.P.M.



Tri-Rotor Model 50 BV Mounted on truck chassis.

NOTE THESE 10 OUTSTANDING FEATURES OF TRI-ROTOR SUPREMACY

- By-pass is eliminated
- Heat generation is eliminated
- Reduces vapor losses in handling volatile liquids
- Excessive pressures are eliminated
- Less power is required
- Constant minimum pressure is maintained
- Does not "shock the line" when starting delivery
- Works better with meters
- Extremely quiet in operation
- 9¾" bearing

THE YALE & TOWNE MFG. CO.
STAMFORD, CONN.

Happy Motoring

ESSO STATION

Supplies and services are available at the Esso signs identifying thousands of American and foreign filling stations, selling motor fuels and lubricants from the world's largest refineries and most extensive petroleum research and development laboratories.

NOT CONNECTED With Standard Oil Company (Indiana)

ESSO INC.
26 Broadway, New York

The word ESSO is "A sign of service and a symbol of quality"

ESSO—for Premium Motor Fuel ESSO MOTOR OIL—for Premium Motor Oil
ESSOLENE—for Regular Motor Fuel ESSOLUBE—for Regular Motor Oil

SOLVE OIL BURNER HEATING PROBLEMS

TO make more money through selling oil burners and then keeping them supplied with fuel, oil burner men must understand the principles of heating and oil burners.

Mr. Han A. Kunitz in writing the Oil Heating Handbook has not only contributed a comprehensive manual on this subject but he has written it in the language of the average man.

The Oil Heating Handbook is the first book of its kind ever written. It deals impartially with the principles, installation, and maintenance of oil burners and gives a concise answer to every question the prospective burner buyer asks about oil heating.

Order your copy today and profit by the invaluable information which this volume makes available to you for only $3.50.

Send Order With Check to the Book Department

NATIONAL PETROLEUM NEWS
1213 W. 3rd St. • Cleveland, Ohio

ficiaries of paternalism. That free enterprise and democracy are desirable is assumed. On that assumption it is our business to build bulwarks to protect them against the oncoming flood.

That the flood is in sight needs no further demonstration than the Thomas-Disney bill introduced in Congress in 1934. This bill was more than rhetoric or the imagined hobgoblin of timid souls. In the form in which it was actually recommended for passage by the Committee on Mines and Mining of the U. S. Senate, this bill placed it in the hands of the Secretary of the Interior to determine national demand and to allocate the supply of that demand by prescribing the quota of crude petroleum from each oil producing state "pool, field, lease or property, storage unit, or other source of supply as he may find necessary to effect such national limitation".

The bill provided further that "it shall be unlawful for any person to place in commerce (whether such commerce is interstate or intrastate, or whether exportation or importation is involved) by sale, exchange, consignment, or otherwise, or to receive in commerce with knowledge or reasonable ground to believe that the same is in excess of quota, any crude petroleum in excess of quota, or any product known to have been derived in whole or in part from crude petroleum in excess of quota or with reasonable grounds for such belief".

These quotas to be prescribed by the Secretary applied not only to the movement in commerce but the actual production "in or from such state, pool, field, lease, property or well".

If I correctly interpret the plain English of this bill it gave the Secretary of the Interior the power to fix the daily production of petroleum from each and every well in America.

Required Permits

The Margold bill, a sort of John the Baptist of the Thomas-Disney bill, and drafted by the solicitor for the Department of the Interior (which, however, was never officially born) went much further, from production to refining and distribution, requiring a federal permit to open a filling station, and giving the Secretary the power to fix prices for all petroleum and petroleum products.

The violation of the Thomas-Disney bill, or "any order, rule or regulation issued or promulgated pursuant to this act" was made a criminal offense, punishable by a fine not exceeding $1000, or by imprisonment for not longer than one year" or both, and "each day such violation continues shall be deemed a separate offense". In addition, all petroleum or its products placed or received in commerce in violation of any order issued by the Secretary, meant a forfeiture by the guilty person of $1 per barrel to the U. S.

When Uncle Sam experimented with alcoholic prohibition the buyer was not made a potential felon. Not so under the Thomas-Disney bill. The receiver as well as the seller flirted with prison. Gasoline became more deadly than the Demon Rum.

As I said, this bill was not the dream of an opium eater. It was actually placed on the calendar of the Senate for

passage, with the powerful backing not only of a cabinet head but of many of the leaders of the petroleum industry themselves.

All of these crimes, misdemeanors, forfeitures, penalties and incarcerations were to come into being, not because petroleum was poison, or gasoline a gangster's gun, but for the sake of supporting prices under the holy banner of conservation. The bill, let me repeat, was seriously advocated at a time when, as stated before the U. S. Supreme Court, the only repository for various decrees, orders and ukases of officialdom was the pocket of some person wearing a federal badge down in Texas. If you could examine the right pocket you might ascertain your fate!

Yes, In the U. S.

I feel that I should remind you again that I am not speaking of Russia, Germany, Italy, Spain or Japan, but of the United States of America, A. D. 1934.

Let us be fair about this whole matter. What reasons existed, persuasive to a large segment of the oil industry, as well as public officials, which seemed to them to justify legislation of this sort —the very negation of free enterprise and the almost certain forerunner of actual government ownership and operation in the petroleum industry, both production, transportation, refining and marketing.

The men who advocated this bill were patriotic and good citizens. They were faced with what seemed to them an intolerable condition. It is possible there were few, if any, secret believers in state socialism among them. But desperate over the apparent failure of all other expedients, they became the advocates of action which was probably alien to their intellectual inheritance or social outlook.

The reasons which actuated the supporters of the Thomas-Disney bill were set forth in the report of the Senate Committee on Mines and Mining. I quote the most pertinent paragraphs of that document:

Text of Report

"The supply of crude petroleum in the United States at the present time is far in excess of the amount required to satisfy our market requirements for consumption and export.

"In addition to those domestic sources of supply, large quantities of crude petroleum are available in foreign nations at low prices and imports of crude petroleum and its products, including natural asphalt, from these nations constitute a continuing menace to the markets of domestic producers.

"Interstate commerce in petroleum and its products is disrupted and demoralized by the entry into commerce of more crude petroleum than the markets can absorb. The existence of these tremendous supplies of crude petroleum at the present time threatens the recurrence of the chaotic conditions that have invariably resulted in the past from the flooding of our markets with excessive quantities of crude petroleum.

"Past experience has demonstrated that the law of supply and demand cannot be relied upon to prevent the destructive dumping of excessive supplies of crude petroleum on the market from

FREEDOM OILS *Offer*

Everything a Jobber Wants

. . . INCLUDING PROFITS

Sealed up in bright, appealing lithographed cans, Freedom 100% Pure Pennsylvania Motor Oils may LOOK like other oils, but to the jobbers who are handling them, they MEAN a lot more. They mean satisfied customers, pleasant refinery relationships, enhanced reputations, and above all—PROFITS.

Reporting on their exclusive brand franchises some of the biggest names in the business have volunteered the comments quoted in this advertisement.

HAPPY RELATIONSHIPS:

"We hope to have the pleasure of selling Fort Pitt Oil as long as we remain in business."

"We appreciate our connection with you."

"We spent a long time investigating different brands of Pennsylvania oils . . . we decided that Beaver-Penn was the one we were looking for."

PROFITS:

"Our success is in having the best on the market."

"Best distribution we ever had for a Pennsylvania oil."

"Four carloads last year. At least 50% increase this year."

"We feel sure sales of Penn Trump will be more than double the past six months."

★ ★ ★

For the full Freedom story of profits and for details on our special exclusive franchise plan, send the coupon or write.

SATISFACTION:

"In every instance where we have sold Beaver-Penn it has repeated . . ."

"We attribute success to the fine quality of Fort Pitt Motor Oil. Increased sales due to quality."

THE FREEDOM OIL WORKS CO.
121 Third Street Freedom, Penna.
We are interested in learning about your exclusive brand franchise.
Name
Address
City

FREEDOM

THE FREEDOM OIL WORKS CO.

121 THIRD STREET · FREEDOM, PA.

There's NO GAMBLE in using

Evidence!
1. FAILURE OF DELMAR-DB GASOLINE-PROOF LINING IS UNHEARD-OF!
. . . although thousands of lengths have been sold and used continuously by all types of buyers.
2. HUNDREDS OF THE FIRST LENGTHS INSTALLED — NOW THREE YEARS OLD — ARE STILL ON-THE-JOB!
. . . month after month of day-in-and-day-out service has proved the durability of DELMAR-DB.
3. MANY OF THE LARGEST AND MOST IMPORTANT BUYERS HAVE APPROVED DELMAR-DB AFTER CRITICAL INVESTIGATION!
. . . major oil companies are employing it for replacement; pump manufacturers for original equipment. DELMAR-DB *must* be okay to satisfy such experts.
4. IT HAS APPROVAL OF THE UNDERWRITERS' LABORATORIES!
. . . this convincing evidence of reliability is marked on every length.

DELMAR-DB — GASOLINE PUMP HOSE —

DELMAR-DB PUMP HOSE!

3 YEARS OF ACTUAL PERFORMANCE

. . . under every operating condition . . . proves the consistent economy and efficiency of DELMAR-DB PUMP HOSE

EVEN if you're inclined to be a little cautious about "new things", the evidence on the opposite page will show you that there's no gamble in using DELMAR-DB. A performance record of over three years, covering thousands of lengths of hose is the strongest possible guarantee of satisfaction.

DELMAR-DB has won the approval of scores of hose experts, including oil companies and pump manufacturers, who can't afford to take chances. Let us place all of the facts before you, or mail you our special bulletin—"First Truly New Hose Since Goggle and Duster Days", which describes an unusual combination of hose qualities which are bound to materially reduce your hose costs, eliminate hose troubles and speed-up dispensing.

DELMAR-DB is made with the unique *gasoline-proof* tube developed over three years ago by the Electric Hose & Rubber Co. Smooth and fast-discharging, this lining just *can't* flake or disintegrate. It has a specially-developed carcass which is reenforced with woven wire and cord for maximum strength and durability, with flexibility. DELMAR-DB contains an embedded static-wire and has a tough, wear-resisting cover.

An alternative *braided* construction, is offered in ELECTRIC-DB. This is a light, extra-flexible hose with a super-strong braided wall, having the same famous tube and other features provided by DELMAR-DB.

ELECTRIC HOSE & RUBBER CO.
WILMINGTON DELAWARE

— product of ELECTRIC HOSE AND RUBBER CO.

fields of cheap flush production. The law of capture applied to property rights in oil and the competitive race for extraction by operators over a common reservoir render this mineral unamenable to the ordinary restraints imposed by the law of supply and demand.

"The limited storage facilities of the producers and the necessity of emptying their tanks in order to maintain their position in this competitive race of extraction forces each producer to dispose of his oil upon the market as soon as it is produced regardless of market conditions, and even though he may be compelled to sell at a price below the total cost of producing oil.

States Powerless

"The limitation of commerce in petroleum to the amount needed to satisfy our current market requirements cannot be accomplished by the separate action of the various producing states.

"Only 3 of the 18 oil-producing states have statutes authorizing any restriction upon the production or the movements of oil. Even if the states having curtailment statutes could agree upon their respective shares of the national market, which is improbable, any one of the other producing states without similar statutory provisions could completely upset their curtailment program.

"One state by its failure to control excessive production and movements of petroleum can seize the markets and disrupt the commerce in petroleum of the other states.

"Interstate and foreign commerce in petroleum cannot be regulated by the Federal Government without also regulating intrastate commerce in petroleum.

"Federal regulation limiting the movement of petroleum in commerce to the amount needed to satisfy current market requirements is also necessary to protect valuable petroleum reserves from destruction. Of the approximately 320,000 producing wells in the United States approximately 250,000 have an average production of less than 2 barrels per day. These wells will continue to produce for many years if their abandonment is not compelled by the flooding of the market supplied by their production with cheap oil from field of temporary flush production.

"The proper regulation of commerce in petroleum is necessary for the promotion of the stabilization of the petroleum industry and the furtherance of our national economic recovery.

"The beneficial results obtained by a Federal regulation of production of crude petroleum under the code of fair competition for the petroleum industry since August, 1933, demonstrate the extreme desirability of enacting permanent Federal legislation designed to prevent the recurrence of the demoralized condition existing prior to the adoption of the code."

Did Not "Go To Hell"

The bill, of course, did not become law. The industry did not "go to hell in 30 days" as promised. Other methods with no direct federal control, without destruction of the autonomy of the states, without amending the Federal Constitution, and without government ownership, federal or state, were found which have, I believe, been fairly effective.

Whether in the days to come a similar state of facts will arise, I do not know. Whether another great pool like East Texas will ever be pierced by a driller's bit, you do not know. Whether there will ever be another Thomas-Disney bill none of us can know.

We can, however, assume, for the sake of prudence at least, that a day will come when there will be another demand for federal control of industry, not perhaps because of flush production demoralizing markets but because of threatened or actual inadequacy of supply to meet the insistent demands of 130,000,000 Americans at peace or a nation at war.

I am not an alarmist. I say only that prudent foresight for the future of this industry is as much indicated as prudent forethought for the defense of the nation against a problematical future war. And again assuming the undesirability of the loss of free enterprise in this industry, what steps does prudence dictate to prevent that loss?

Industrial Statesmanship

In general it seems plain that industrial statesmanship must do as much as political statesmanship can promise—and more! The industry and the oil states must have a record of actual accomplishment in the public interest so impressive that argument for the nationalization of the industry can find no substantial support.

Any course short of that is gambling with destiny. If and when there is acute demand, short supply and no good substitute, one lives in a fool's paradise if he does not think the nation will commandeer this industry as it did the railroads in 1917 and without, perhaps, returning it to its owners if and when the emergency is over. This is an Oil Age and no one ought to forget it.

I know so little about this great industry, and know that I know so little, and know, also, that you know that I know no more than I know, that I shall abjure dogmatism even at the risk of appearing to avoid coming to close grips with the actual solutions that must be worked out. It is your task, gentlemen, to find the solutions. All I can properly even attempt is to urge you to that great task, and to join with you in discussing ways and means to save free enterprise in the hopes that

"After us some better plan will be
Brought forth by wiser men than we
Made wiser by the steady growth of
Truth."

Taking counsel with men far better qualified to speak than I, let me quote from the Daily Oklahoman of December 29th last, as follows:

Suman Quoted

" 'Two major factors face the oil industry of this country'," John R. Suman, vice president of the Humble Oil & Refining Company, pointed out as the year ends.

" 'Conservation comes first'," he said, and added 'Natural gas and oil are recognizable as irreplaceable natural resources and the efficiency with which they are removed from the reservoir is now considered of vital importance.

" 'On reserves,' he continued, 'through the application of scientific knowledge the industry has been able to build up a discovered reserve of 13,000,000,000 barrels of oil in the United States. It will be necessary to find approximately 1,000,000,000 barrels of reserves per year in the future to maintain our reserves at the present rate of consumption.' "

Wise and temperate words! Conservation is placed first where it belongs. As a corollary, efficiency of removal is of "vital" importance. Second, limited known reserves—about 13 years' supply—and the necessity of preserving that margin or factor of safety.

The oil industry in private hands has assumed the responsibility of providing the nation with its needed oil. It will be held to that responsibility. To discharge it the industry as an industry must, let me repeat, do such a good job that no reasonable fault can be found with it by the advocates of nationalization.

Certainly, neither Mussolini, Hitler, Stalin nor Norman Thomas could be more efficient than private enterprise in finding the necessary billion barrels yearly. On that point the industry is entitled to the distinguished service medal. As good a record is being made in refining. A good, but not as good record, is being made in distribution.

But is the record as good in the efficiency of removal which Mr. Suman discusses as of "vital importance"? It is here that the industry is exceedingly vulnerable to the criticism of those who advocate the public ownership of natural resource industries.

Efficient Removal

Frankly, it seems to me that this is the Achilles heel of the giant of free enterprise. The waste, the low efficiency in removal from the natural reservoirs is notorious. The public is fully acquainted with the record. It is hard to defend at any time and will be impossi-

Cry Will Come for Federal Control

"We can, however, assume, for the sake of prudence at least, that a day will come when there will be another demand for federal control of the oil industry, not because of flush production demoralizing markets but because of threatened or actual inadequacy to meet the insistent demands of 130,000,000 Americans at peace or a nation at war——

"In general, it seems plain that industrial statesmanship must do as much as political statesmanship can promise—and more. The industry and the oil states must have a record of actual accomplishment in the public interest so impressive that argument for the nationalization of the industry can find no substantial support.

"Any course short of that is gambling with destiny. If and when there is acute demand, short supply and no good substitute, one lives in a fool's paradise if he does not think the Nation will commandeer this industry as it did the railroads in 1917 and without, perhaps, returning it to its owners if and when the emergency is over. This is an Oil Age and no one ought to forget it."

The Colonel's Lady an' Judy O'Grady

Are Sisters Under Their Skins

VALLEY CITY, N. D.

IN THIS town of 6,000 population, poet Kipling's comment about the similarity between ladies is shown to be applicable to service stations.

Whether you sell gasoline at the crossroads of the world in a great metropolitan center . . . or whether you sell it in a town so small that only the largest maps can show its location . . . you soon discover the basic fact that your sales are affected by the very same factors. And most important of these, no matter what size your city or hamlet, is *consumer acceptance.*

If people know and want your merchandise, if the goods you sell are the kind that get themselves favorably talked about, you'll get the bulk of the business no matter what spot on the map stands for your town.

These truths are being proved daily all over the Phillips jobbing territory. As soon as the Phillips 66 Shield goes up, the cars start coming in. Drivers have heard about this wonderful motor fuel from their friends. They've listened to its economy and performance features as explained on the radio. They've read about them in magazines and newspapers. They've seen them on the billboards. Consistent top quality of product is coupled with consistent advertising pressure; and the result is an ever-growing and active acceptance of Phillips 66 products by car owners.

These advertisements are links in the chain of proof which we have been giving to N.P.N. readers. We are therefore proud to give you Mr. Wilson's own statement. He says:

"Since entering the oil jobbing business in 1920, we have marketed several oil companies' products, all of good standing and well advertised—but can truthfully say that during the past twelve months in which we have had the Phillips franchise, we have noticed public acceptance for this merchandise above anything we have ever handled. However, this should be no surprise to any jobber familiar with the oil business, when you examine the reports from the State Chemist and find you have a gasoline specification suitable for every month of the year."

May We Send You Facts and Figures?

Would you be interested in knowing exactly what good jobbers, who are perhaps good friends of yours, have accomplished with Phillips 66? Would you like to have the down-to-earth facts about building greater volume and profit?

Just say the word. Without any obligation on your part, we will gladly show you exactly what others have accomplished in situations similar to your own. We will specifically outline the co-operation you can expect and will receive. We will cheerfully answer all questions, and back our story with facts and figures. Wire, write, or phone

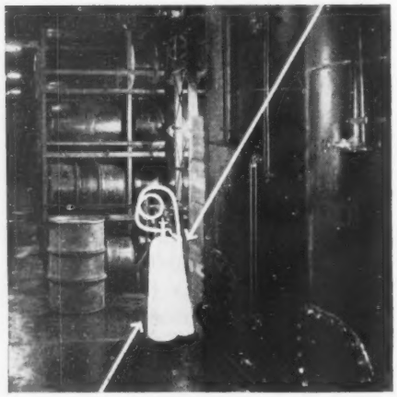
PHILLIPS PETROLEUM CO.

Bartlesville, Oklahoma

Chicago Minneapolis Peoria Indianapolis
Des Moines Omaha St. Louis
Kansas City Wichita Tulsa Amarillo

Many a big city station would be envious of the 1936 gallonage record made by this Valley City Oil Co. station. Mr. F. H. Wilson, owner, reports that 1937 gallonage is already far ahead of his previous year's figures. He says "Everyone in town is talking about 66."

Something's MISSING HERE



—and it means REAL FIRE PROTECTION

It is mighty bad business policy not to guard every fire hazard. There is no economy in sparing the extinguisher and spoiling the plant. It is equally poor safety policy to have the *wrong* extinguisher.

Let's be specific. In the oil storage room, pictured above, carbon-dioxide fire protection is essential. Fire here will probably involve running oil. And nothing snuffs out running oil fires with the sure speed of LUX carbon-dioxide snow-and-gas.

For oil, gasoline, or any flammable liquid, LUX extinguishers give finest possible fire protection. LUX snow is not only sure death to fire. It is clean, dry and harmless to man and materials.

Bulk plants, oil barges, company trucks, loading racks . . . you can protect them *better* with LUX. You may buy LUX extinguishers ranging from 2 to 100 lbs. carbon-dioxide capacity. For information and prices write to

Walter Kidde & Company
26 West Street Bloomfield, N. J.

Effective Fire Protection for Refineries Bulk Plants Trucks

ble to defend when and if the pinch of short supply and rapidly rising prices is felt.

If that day comes, and again I say it is only prudent to consider that possibility, what answer or excuse will private industry give to the imperious question why it left from five to ten barrels of petroleum in the ground for every one removed? What answer will it give to the charge of the wanton waste of natural gas which has been described by friends of the industry as "a scandal for years"?

I have already expressed myself on this point in my book "Hot Oil" where I said:

> "Except for the bloodshed, the Dred Scott decision which helped to bring on the Civil War was small change so far as loss of treasure was concerned. as compared with the law of capture. This has cost uncounted billions in unnecessary drilling equipment, in the ruthless exhaustion of reservoir supply, in leaving underground billions of barrels otherwise recoverable, and in the abandonment of profitable stripping wells in the mad rush to new flush fields—all to the cost of the producer, the consumer, the nation, and the generations yet unborn."

Change in the law of capture to better harmonize petroleum with *pro patria* sounds like a legal problem. I assure you, gentlemen of the American Institute of Mining and Metallurgical Engineers, that it is more fundamentally an engineering problem. It is your job to build a scientific foundation upon which to erect the legal superstructure. When, and if, the courts and legislatures can be shown that changes in the capture rule can be based on knowledge and not guess, I feel certain that the rule will be brought to serve better not only the surface land owner, but the long future of America.

Engineering Problem

In whatever contribution you may make to this result you may feel confident of the verdict of history. In this work the scientist and citizen will merge.

Let us now discuss the greater subject of which petroleum is but a part—Free Enterprise. The following questions come to our mind: What do we mean by free enterprise? Why is it now questioned? Who has discredited it? What are the alternatives to it? Are those alternatives any better, and if not, what can we do to preserve it as a legacy for our children?

First, who gave free enterprise its present black eye?

I developed this at some length in my address on "The Future of Free Enterprise" before the American Petroleum Institute at Chicago last November. I will not repeat now what I said then except in summary.

Free enterprise is now discredited, not by open advocates of state socialism, but by business men themselves—particularly those in finance. They have done it two ways—indefensible conduct in their own fields of activity—and second, by rushing to Washington for special privileges for themselves or legislative handcuffs for their competitors.

If capitalism is destroyed in this country it will be chiefly an inside job. It will die in the home of its friends, its deathwound given by its beneficiaries and not by its foes.

A critical examination of the wolves in business and finance is far more necessary than a scrutiny of Rexford Guy Tugwell, Norman Thomas, or Earl Browder.

Industry's Task

I do not say this to scold but because I believe it is the exact truth. If disease is known to exist there is no friendship in concealing it.

It is the job of the owners and managers of free enterprise to clean house. If they do not do it, it will be done for them—or at least, the effort will be made.

It is their job to look for the leaks in the ship, and to caulk them.

It is their job to make free enterprise function in the interest of the masses without which it cannot function at all.

But however important these disagreeable matters are, let us now turn to free enterprise in relation to political government.

The expression "free enterprise," like "state's rights" is a ready handle for something which the phrase does not actually describe.

There is no such thing, literally, in a modern society as "free enterprise". No enterprise is or should be wholly free to do as its managers might desire. It never has been free. Under ancient common law no enterprise was free to palm off its goods as the product of its competitor. Similarly, in modern times, secret rebates and other practices of cunning and fraud have been equally forbidden.

By free enterprise we mean substantially a system for the production and distribution of wealth, owned and managed by private individuals in pursuit of profits, a system which struggles for customers in the market place, through the competition of excellence, quantity, and the price of its product or service.

Regulation Necessary

We do not mean that such a system should be unregulated. On the contrary. When the means for the production of wealth are in private hands, regulation in the public interest is always necessary. But under a free system competition furnishes the needed regulation—with some exceptions. Destroy competition and there can be little justification or even toleration for leaving the production of wealth in private hands. Competition furnishes the remedy for abuses, the preventive against monopoly, the elimination of senility, and the spur to excellence. In brief it gives us "the democracy of opportunity and the aristocracy of achievement." It succeeds by offering the most and best for least.

It is, in the main, the system by which in a few brief decades we have conquered and peopled a continent and made America the treasure house of the world. It is a revolt against the earlier system which ruled Europe for centuries. This system was called mercantilism and under it the production of wealth was regulated not by the free play of competition, but by the denial of competition and the substitution of law, rules, regulations and decrees imposed by persons who lived in bureaus.

In his History of the American People,

Woodrow Wilson contrasted freedom against bureaucracy in the struggle for the mastery of North America between England and France as follows:

Wilson Quoted

"For all France was as keen to seek her interest in the New World as in the Old, the signal advantage, as the event abundantly proved, was to lie with England in this new rivalry in the wilderness.

"England had become a commercial nation, quickened in every seaport by a bold spirit of individual enterprise that would dare anything for a success . . . . In France, meanwhile, individual initiative had been stamped out and the authority of church and state consolidated, to command and control every undertaking.

"The French colonies pined under careful official nursing; the English colonies throve under 'a wise and salutary neglect'. A churchly and official race could not win America. The task called for hardheaded business sense, patient, practical sagacity, and men free to follow their own interests by their own means . . . It was this self helping race of Englishmen that matched their wits against French official schemes in America."

1776 is justly regarded as one of the great years of history. In 1776 two documents were brought forth which have profoundly moulded life on this planet for sixteen decades of time—the Declaration of Independence and the Wealth of Nations. During that year Thomas Jefferson and Adam Smith sowed seeds which have given man the richest harvest of plenty and happiness he has ever known.

But now it is said that the harvest has failed. Political persons and scholastic pundits tell us that democracy and free enterprise must go. Laissez faire, which is free enterprise in its Sunday clothes, they say, is all washed up. We hear this so much, so often, so ceaselessly, that many of us have come to accept it as the new dispensation.

Free Enterprise Dead?

"Alas, poor Yorick. I knew him, Horatio, a fellow of infinite jest, of most excellent fancy. He hath borne me on his back a thousand times!"

Before laying down free enterprise for the last time let us at least critically ascertain whether he is really dead, and if not, whether this new creature of government by bureaucrats can carry us on his back as far and fast and furnish us with as many a merry jest as the old Yorick of free enterprise.

Justice Holmes once said, "A good catchword can postpone analysis for 50 years." So it is, I think, with all this gloomy talk of the sad death of laissez faire.

Whence came this seductive assurance that there is something better for man than liberty? Whence came this gospel of despair, this creed that man is corrupt and incompetent; that he needs must have a master? What have these new Caesars done to cause us to forswear the inheritance bequeathed us from the past? Have they demonstrated that they are more modest than ancient kings in the exercise of power to put through their programs? And why should we now invite the same kind of persons with badges to rule our households whom once our fathers and mothers crossed stormy seas to escape?

Sometimes a sense of humor is a saving grace. Ask these pompous persons, busy with their vast plans for controlling the destiny and thinking the thoughts, and shaping the lives of 130,000,000 people and their children yet unborn—go up to one of them and ask him the price of wheat next Saturday or of General Motors stock come Easter!!

You might as well reflect that the depression was chiefly caused by war, retaliatory tariffs, the scramble for gold, the burden of armament, the competitive undervaluation of national currencies, and the puffing of the stock market boom in 1928-1929 by high officials, and that all these things were the direct responsibility of government officials and not of laissez faire.

Critical of Promises

Let us be critical of all these *promises* of security in exchange for liberty. Unless we are prepared to plump outright for government ownership, we should constantly remind ourselves that government, as such, can guarantee security to no one. It has nothing to give. It produces no wealth. It has no assets—not enough to keep the wolf from the door a single month. All it has, all it can pledge to secure its promises, is its power to reach into the pockets of those who do produce wealth and distribute the funds so taken

Double
LUBRICATION...
THE GRAPHOID SURFACE—
A SAFEGUARD AGAINST WEAR
The extra film of protection, formed by the use of a "dag" colloidal - graphited oil, is the well known, self-lubricating GRAPHOID SURFACE.
Being unaffected by heat or cold, and adhering tenaciously to metal, the presence of a durable, lubricating film at ALL times and under ALL operating conditions is assured.
The graphoid surface is on the cylinder walls during wear-producing cold starts. It is found in the combustion zone, lubricating despite a 3000°F temperature (plain oil oxidizes at 600°F). It is, in fact, at every friction point reducing wear during "shock conditions". Write for copy of "cigarette paper test" showing graphoid surface coverage.
Ask your oil supplier about his colloidal-graphited oils today
ACHESON COLLOIDS CORPORATION
PORT HURON, MICHIGAN
dag
COLLOIDAL PRODUCTS
COLLOIDAL GRAPHITE
"DAG" COLLOIDAL GRAPHITE IS A 100% AMERICAN MADE MATERIAL
ACHESON COLLOIDS CORP., PORT HURON, MICH.
Please send gratis, story on "dag" Colloidal Graphite and copy of "cigarette paper" test.
NAME
ADDRESS

to its own purposes or to the relief of the unfortunate.

Aside from that government is perpetually bankrupt. If its people are impoverished the state is helpless. No government can be any stronger than its *strongest* link. If it would succor the poor and helpless it must place no needless impediment in the way of the producers of wealth.

Government Responsible

One of the most dangerous elements involved in teaching people to look to Government for salvation is that Government will be held responsible for what it promises. If, which God forbid, there be another crash like 1929, it will be Washington and not Wall Street that will get the blame. The economic royalists may be glad to shift the responsibility for the unsuccessful functioning of the economic machine, but it will be a sad day for democracy.

I do not wish to place free institutions at the hazard of unpredictable events. Democracy emerged, like Phoenix from its ashes, from all earlier panics in our history because it had not given guarantees that no storms would ever come. That is the danger in government going partners with business.

I am not to be understood as advocating a completely "hands off" policy. At all times government can perform, and must perform some economic chores. And in emergency and calamity it must pledge the pooled resources of its people at the weak point of the levee which holds the flood in check.

I am simply pointing out the grave dangers involved in government permanently assuming the economic guardianship of its people. It is still true that "that government is best which governs least". The state should seek to perform only the inescapable minimum of economic function.

Still Run By Humans

In the last analysis, whether business is run by business men or by government officials, it is still run by human beings. And it is a child's illusion that a uniform and a badge add anything to wisdom or virtue. Business men, actuated by the profit motive, may yield to greed for gold. But the greed for power has caused the greater wreckage. "The paths of glory lead but to the grave." It was not the love of money which caused Napoleon to turn Europe into a charnel house. After the battle of Bautzen he wrote to his empress, "My health is good. I put my losses at 3000 killed and wounded. **I lost no one of any importance."** And among the ruthless dictators of today you find men who are almost ascetics in their personal habits.

No one has condemned in stronger terms than I the shocking betrayals of trust and the abuses of power in private hands which have given free enterprise its present terrible black eye. In escaping these evils I do not think it is necessary to go to the other extreme of state socialism.

But if the only alternative to an economic autocracy were a political autocracy, I would prefer the former. I might be its wage slave, but so long as my government is free and my ballot box is open and my vote is counted, and the judge on the bench is beyond control I can fight for my freedom and struggle against my fate. And even if I fail, men may still write over my grave the profound saying of Guizot, "The struggle itself supplied in some measure the place of liberty".

But under a political autocracy my economic destiny is dictated by government and my protest to my master is answered by the machine gun and Siberia.

Our fathers condensed the teachings of centuries when they nailed to the mast the old banner with the old truth written thereon, "Eternal vigilance is the price of liberty."

Is Government Capable

Even if these considerations are to be disregarded the question of efficiency is still to be answered. You can overload a steel column, a brick wall, a bridge. You can overload a human being. You can overload government. That is a truth which Justice Brandeis recurs to again and again. To quote his words: "Our government does not yet grapple successfully with the duties it has assumed and should not extend its operations at least until it does". And again, "Man's works have overrun the capacity of the individual man". Any one who ever tried to get action in the vast jungle of federal bureaucracy knows what a blight on progress government can be.

To quote Brandeis once more, "No system of regulation can safely be substituted for the operation of individual liberty as expressed in competition"; or what Justice Holmes called the "free struggle for life".

We may pay too high a price for "efficiency" in government. We hear that the distribution of power, rather than its concentration is not efficient. Our fathers distributed powers, not to gear them into each other like oiled machinery, but to check and balance each other. The incidental and often inevitable friction was the price they were willing to pay for freedom.

Uncritical Acceptance

Even with men of the best intentions in office we know that uncritical acceptance of the state is always dangerous. History records its purple pages where for a few years government under inspired leadership has served mankind, chiefly by giving them freedom to think, plan, work and live. But these periods are always succeeded by the state functioning as a predatory power. And at all times and under every form of society known to human annals the "invisible government" is always at work to use the processes of lawmaking and law enforcement to give Bill Sykes the chief place at the feast of life. "Where the meat hangs, there the wolves gather".

I would stand a good deal of creaking and grinding in the gears of industry before rushing to Washington to cure them. Can Washington cure them? Will Washington cure them? Will they stay cured? Can Washington guarantee replacements and repairs?

At the very time private enterprise in the petroleum industry was being excoriated as "hot oil thieves", "plunderers of posterity", and "Lacking in vision", the government which was doing the scolding was engaged in forced drilling for oil in public and Indian lands, a condition not yet remedied. This is one of thousands of examples of similar contradictions.

Closely connected with this question of the survival of free enterprise is the matter of "an indivisible union of indestructible states" as against a bureaucratic farflung empire.

"State's rights" is a misnomer, as is "free enterprise". The abstractions we call states in no real sense have rights. Rights attach only to human beings. "State's rights" is simply a convenient phrase for posing this question: Where are certain powers of government to be most wisely and safely lodged?

Everyone admits freely the need of the federal government assuming some additional functions to keep pace with the march of science. The Federal Radio Commission is one example. No one would advocate 48 commissions attempting to allocate air channels, any more than he would advocate 48 traffic cops at a busy intersection.

But I nevertheless believe Jefferson is right in all cases except where Hamilton is inevitable. The transfer of power to Washington, the destruction of local autonomy and the self-reliance of our citizenry should be a matter of inescapable necessity and not of supposed convenience.

Not "Liberalism"

Nor am I fooled by giving this march on Washington the name of "liberalism". A movement toward the center and toward the concentration of power at a single point or in a few hands may or may not be justified by the advance of economics, but it cannot be described as a liberal movement.

The warning voices of every sage and patriot and the teaching of every chapter of history, ancient or modern, prove that this is so.

It is in the distribution and not in the concentration of power, political or economic, that democracy finds its only refuge.

A movement toward the center is an authoritarian movement — the antithesis of liberalism. Most movements in the world today tagged as "liberal" are the exact opposite. "Liberal" still has some connection with "liberty".

In its deepest sense liberty *is* security Where we say a man has freedom of speech, press, petition, assembly, religion, we mean that he is secure against their denial, against packed courts, intimidated legislatures, political exile.

Abraham Lincoln once said, "Tyrants always bestride the necks of the people on the theory that it is for their good". We must beware the demoralizing effects of benevolence.

This is not the language of a tory or reactionary. Let me quote the greatest leader that American labor ever had, Samuel Gompers:

> "If I were in the minority of one in this question I would want to cast my vote so that the men of labor shall not willingly enslave themselves to government authority in their industrial struggle for freedom. Let the future tell the story of who is right and who is wrong, who has stood for freedom, and

ANNOUNCING THE Brookins HYPOID GEAR LUBRICATOR

- Lowest cost—fastest operation—durable—light weight—leak proof.
- Empties completely 1, 2, or 3 pound cans (of standard 59/16" height). Dispenses one pound in eight seconds.
- Telescoped dispensing tube guarantees full delivery of entire contents.
- Operation of relief valve automatically returns lubricant in outlet nozzle to can.
- Dispensing tube inserted close to side of can and reaching lowest point insures complete drainage.
- Hand operated—no danger of moisture from compressed air in lubricant.
- Sharp steel cutter easily pierces container. No danger of injury to operator's hands when opening.
- Curved discharge tube fits all openings and makes same easy to service.
- No air line necessary; no danger of bursting or possibility of injury to operator.

Brookins manufactures all types of sturdy, modern, efficient service station necessities. Send for the new Brookins catalog for specific information.

SPEED EFFICIENCY at LOW COST

$3.40 ANYWHERE IN THE UNITED STATES

THE Brookins MANUFACTURING CO.
DIVISION OF
THE CINCINNATI BALL CRANK CO., CINCINNATI, OHIO U.S.A.

who has been willing to submit his fate industrially to government."

The function of good government must essentially be negative, telling us what we may not do, rather than affirmatively telling us what to do. Or, as Thomas Jefferson said in his first inaugural,

"A wise and frugal government which shall restrain men from injuring each other and leave them otherwise free to follow their own pursuits of industry and employment."

Open Competition

With our immense resources and that greater capital that lies in the brain of the American in "following his own pursuits of industry and employment", we can rely upon a good article at a reasonable price so long as the channels of competition are kept open. This means a progressively greater creation of wealth and its progressively wider and wider distribution by offering most and best for least.

The authoritarians would substitute government monopolies for private monopolies, and then try to regulate the Frankensteins of their own creation. For the once revered "captains of industry" they would substitute, in the sacred name of democracy, the overlords of a "controlled and planned economy".

Human history does not record a government wise enough or virtuous enough to run the multitudinous affairs of its people. There is a saturation point in human capacity. The final inspector of the most gallant ship is not the brain of its designer, but the fury of the sea.

Recreate Competition

Instead of creating monopoly, public or private, and attempting to regulate that, we must recreate competition—and regulate it only when destructive of social values.

We must now come to closer grips with our subject. Is there a middle way between economic autocracy and political autocracy? Can we prevent competition being destructive of human values? Can we cope with the problem of economic units which overrun state lines? Can we do so, I mean, and save democracy?

Manifestly the subject is full of great difficulty and no panacea, short cut or easy way exists. I believe the only hope lies in finding workable alternatives to Federal control.

The danger of the centralization of political power I have tried to demonstrate. If not, look across the Atlantic.

The alternatives must be found in the states and in business organizations functioning in the public interest.

First, are the states helpless? That they are helpless is another of these ready made, mass production, synthetic dogmas which requires critical examination before swallowing. Its dam is lazy thinking and its sire passing the buck. It was conceived in carelessness, born in complacency and reared in cowardice.

No better refutation of this bastard dogma can be found than in the petroleum industry. I refer again to the Thomas-Disney bill, the threat of irremediable ruin for want of Uncle Sam washing the dirty laundry of the states, and then the sudden discovery that way back in 1787 our forefathers had foreseen difficulties that might overrun state lines and had provided for interstate compacts to solve these difficulties without running for help to Washington. It is my understanding that the oil states are now so well pleased with the interstate compact that they want to extend it.

Virtue of State Compacts

The virtue of a compact, or of other devices originating in the states is that no state becomes irrevocably handcuffed to federal control and the destiny of its industries are not put at the hazard of votes cast in a distant legislature by men who have no immediate interest in their prosperity.

I trust we shall hear more of the compact idea, a method clearly constitutional, as one of the workable alternatives to centralization at Washington. I am satisfied that, if President Roosevelt were to champion and publicize it, as effectively as he has other methods, we would find solutions for many of our problems as satisfactory as this plan has been for petroleum.

I believe we would make progress faster in many directions by this means than by attempting to run everything from Washington.

States hesitate to "throw the key down the well" by surrendering all their powers to Washington which, once done, could not be recovered except by a majority vote in both Houses of Congress, plus executive approval, or in case of a constitutional amendment, without a consent to repeal concurred in by 35 other states. Acting by themselves, individually or co-operatively, they may go far and yet retain the key in their own hands.

From the pragmatic standpoint, therefore, of getting the job done, we ought not lightly to dismiss methods like this under the plea that the interested states would never agree. Is this true?

States Work Together

A year ago the Council of State governments organized the Interstate Commission on Crime. The Commission has prepared for submission to state legislatures for common acceptance, four anti-crime bills dealing with the difficult subject of criminals escaping across state lines, as well as getting the evidence of out of state witnesses. Nine states have already accepted one or more of these bills—all in a year's time. Many other matters of like import are now pending for approval.

Uniform state laws is another alternative to federal control. This has been longer tried and the results are notable. Down to Jan. 1, 1936, the Committees on Uniform State Laws of the American Bar Association had drafted and submitted to the legislatures of the States 54 different statutes for uniform acceptance. To the extent that these bills have been adopted in practically identical language, the effect in those states is substantially the same as if Congress had passed the bills (assuming it had power to do so).

All of these acts are of great importance, many far more important than most legislation passed by Congress. The most familiar is the uniform negotiable instruments law, governing the enormous volume of the nation's business, evidenced by promissory notes and bills of exchange. This act has been adopted in every state in the Union. It blankets the field as efficiently as any act by Congress.

For the record let me state other uniform laws and the number of states adopting them: Uniform Warehouse Receipts Act, 48 states; uniform act on Aeronautics, 22 states; to prevent traffic in narcotics, 26 states; guardianship of shell shocked or demented veterans, 33 states; bills of lading, 29; declaratory judgments, 25; desertion and nonsupport, 19; sales of goods 34; stock transfers 25; fraudulent conveyances, 16; criminal extradition, 15; partnerships, 19; traffic in machine guns, 8; reciprocal transfer tax, 17.

Uniform State Acts

A recently submitted uniform act deals with child labor. Other proposals now being discussed have to do with maximum hours, minimum wages and other matters in which labor is so much interested.

The serious problems in the soft coal industry could be settled by interstate compacts or uniform state legislation with, I think, reasonable satisfaction.

I respectfully submit from the record of actual accomplishment rather than from the domain of the theoretically ideal, that there are workable alternatives to federal control, and that the states are not so helpless as they are lazy—some of them.

The Boulder Dam is the result of an interstate compact between seven states; the Port of New York authority, so familiar to all who watch the vast water-borne traffic of our greatest seaport, is the result of a compact, and not an act of Congress.

47 States have in fact authorized or entered into compacts on various matters. Pending proposals have to do with flood control in the Connecticut River watershed, the growing and marketing of tobacco, and hour and wage legislation.

The recent Supreme Court decisions on prison made goods open up new territory for exploration. If prison made goods can be denied a market in a State, cannot that State also deny its market to goods produced by child labor, or in violation of other labor standards?

Industry's Own Field

Turning from government, national or state, I believe we have not yet begun to explore the possibility of industries, through their trade organizations, clearing up their own dirty messes so that they will again be able to walk down the street with their heads up. This raises the difficult question of amending our anti-trust, or federal trade commission laws to permit arrangements by free enterprise in the interest of the public. To discuss the possibilities in this field would require a separate paper. But they are not to be dismissed.

There are still other alternatives to federal control discussed in a recent book "The Commonwealth of Industry" by Benjamin A. Javits, which are worthy of closest study.

And then, gentlemen, I have not lost faith in the American business man. We have all learned much and suffered much since 1929. With a co-operative and helpful spirit from government I have faith that business men themselves are anxious

TRI-SURE CLOSURES

now guarantee a

$100.00 REWARD

as added protection against substitution and pilferage

● To every company that uses Tri-Sure Closures there are now furnished Guarantee Seals, to be pasted on each drum.

These seals state: "$100.00 will be paid by the American Flange & Manufacturing Co., Inc., to anyone in the U. S. A. causing arrest and conviction of persons unlawfully removing genuine Tri-Sure closures and seals, with intention of committing a felony. Suitable reward will be paid in foreign countries."

YOU CAN BE SURE WITH TRI-SURE

Users of Tri-Sure now have not only the satisfaction of knowing that they are using a closure that prevents *tampering* and *waste*, but also that *every* drum they ship has behind it a $100.00 guarantee from the moment it is filled to the time it reaches the customer.

It is now doubly true that "You Can Be Sure with Tri-Sure"—and that if your product is worth shipping it is worth shipping in drums sealed with Tri-Sure Closures.

Make certain that every drum you use is equipped with Tri-Sure, and has the Tri-Sure Guarantee, and you will be certain that every drop of your product, and every dollar you invest in it, is protected.

AMERICAN FLANGE & MANUFACTURING CO., INC.
30 Rockefeller Plaza, New York, N. Y.

HYPOID
APPROVED
GEAR LUBRICANTS

QUALITY? – TOPS.
PRICES? – YOU WILL BUY.
YOUR BRAND APPROVED.

Write — Wire

C. F. BATTENFELD OIL CO.
DETROIT, MICH.

WILZIP
TAILOR MADE
GASOLINE

65 - 68 - 70 - 72- 74 - 76 - 78 - 80 Octane

BLENDED TO FIT YOUR REQUIREMENTS

The new type motors require high octane gasoline.

Premium gasolines are becoming more popular daily.

BUILD YOUR BUSINESS WITH OCTANE

WILOIL CORPORATION

First National Bank Bldg., Pittsburgh, Pa.

Plants: Toledo and Columbus, Ohio. Pittsburgh and Warren, Pa.
Detroit, Mich.

to prevent a return of those evil practices that we are now all so heartily ashamed of.

Where there's a will, there's a way. By action in the states and in industry itself we can make democracy function for the common weal in this 20th Century. All we need is courage to shake off the spell of these present day dogmas which cloak old tyrannies under bright new labels; a reaffirmation of faith in the weapons of free enterprise; a renewal of strength by drinking again at ancient fountains, and the spirit of service and sacrifice and patriotism of George Washington whose birthday next week recalls those virtues to us.

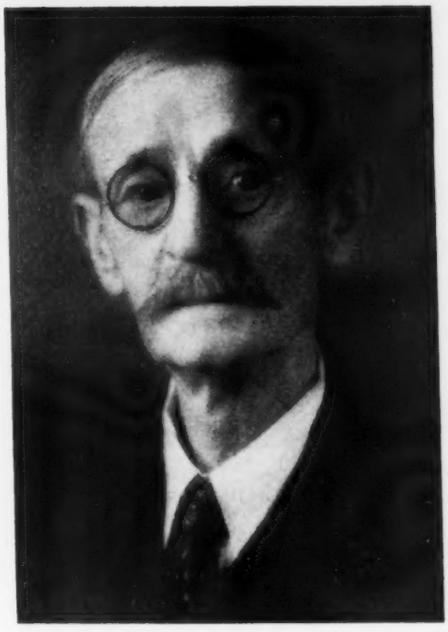
Let us retrace our course and again set sail by the light of the stars our fathers trusted on the greatest voyage the human spirit has ever known.

The Dimits Celebrate 65th Wedding Anniversary

CLEVELAND, O., Feb. 20.—The 65th wedding anniversary of one of the oldest living oil pioneers was celebrated Feb. 13 at his home at Neosho, Mo. The pioneer is L. L. Dimit, whose son, C. P. Dimit, is vice-president of the Phillips Petroleum Co., Bartlesville, Okla. Another son, J. L. Dimit, is with the Gulf Oil Corp. at Sapulpa, Okla., and still another, W. H. Dimit, is in business at Fly, Ohio.

Mr. and Mrs. L. L. Dimit are both 85 years old. Mr. Dimit was born in Allegheny county, Pa., in 1851 and at the age of 11, became errand and water boy in a Pennsylvania field for Col. Drake's old employer. In 1870, when John D. Rockefeller organized the Standard Oil Co. of Ohio, Mr. Dimit went to work for Shealds, Adams & Co. at Parker's Landing, Pa., where about 100 rigs were running. His

Mrs. L. L. Dimit



L. L. Dimit

history in the early days is the history of the oil industry. He was at one time general superintendent of a large producing company, and in 1919 joined the Gypsy Oil Co., now the Gulf Oil Corp. He was with that company until 1927 when he retired at the age of 76.

The couple had one other son, Benton L., deceased, and two daughters, Miss Hester Dimit, of Neosho, and Mrs. D. Elizabeth Butler, Minneapolis. Miss Betty Dimit, daughter of Mr. and Mrs. J. L. Dimit, and a student at Stephens College, Columbia, Mo., was to broadcast a song in honor of her grandparents over KFRU, Columbia.

Globe Moves Offices

CHICAGO, Feb. 22.—The Chicago offices of the Globe Oil & Refining Co. have been moved to larger quarters on the 21st floor of 59 East Van Buren St. Several additions to the staff have made larger space necessary.

G. A. Burns To Kansas City

MINNEAPOLIS, Feb. 22.—Gregory A. Burns, sales manager of the oil division of the Butler Mfg. Co. here, has been promoted to manager of the divisions of oil equipment sales and building equipment sales at the company's home office in Kansas City. Mr. Burns expects to move to Kansas City soon.

Motor Touring Up

NEW YORK, Feb. 22.—Motor touring inquiries increased more than 19 per cent in 1936 over 1935 at the Esso Touring Service of the Esso Marketers, it was announced recently. Total inquiries in 1935 were 180,408, compared to 155,780 in 1935 and 119,957 in 1934.

"Indications already point to motor travel setting another record in 1937," company officials stated. "The unusually moderate January weather along the Atlantic seaboard has kept the motoring public on the highways and caused a new January record for inquiries."

★

HERE'S WHY IT PAYS

to Fortify Primers with Bakelite Resin

WITH ALL its merits as a primer, ordinary red lead and oil is deficient in one important respect. Pure linseed oil vehicle is weak in resistance to penetration of moisture. Fortify it with Bakelite resin, however, and the picture changes.

Here are facts from authentic tests which readily may be duplicated:

MOISTURE-PROOF RATINGS AFTER CONTINUOUS WEATHERING

	Original	*12 months*	*18 months*
Linseed Oil	21	10	0
Bakelite Resin Varnish	73	59	57

Whether your pigment composition is red lead, blue lead, iron oxide or other combinations, the vehicle requires the moisture-proofness and alkali resistance added by Bakelite varnish resins.

This fortifying effect of Bakelite resins is typical of its benefits to other coatings. Leading paint and varnish makers now formulate Bakelite resin fortified coatings for all needs of the petroleum industry. Write for our informative booklet 29S, "Bakelite Synthetic Resins."

Higher moisture resistance and quicker drying result from fortifying with Bakelite Resin.

BAKELITE CORPORATION, 247 PARK AVENUE, NEW YORK, N. Y.
BAKELITE CORPORATION OF CANADA, LTD., 163 Dufferin Street, Toronto, Ontario

BAKELITE

The registered trade marks shown above distinguish materials manufactured by Bakelite Corporation. Under the symbol "B" is the numerical age for infinity, or unlimited quantity. It symbolizes the infinite number of present and future uses of Bakelite Corporation's products.

SYNTHETIC RESINS

IF YOU ARE INTERESTED IN MORE SALES READ . . . "MERCHANDISING OF PETROLEUM PRODUCTS"

• This book written by R. H. Thomas will show you methods of developing new markets as well as increasing the present sales of your product to the old markets. The book is divided into five parts which cover nearly all phases of your business. They are:

1. Helps for agents. 2. Service Station Salesmanship. 3. Oil Salesman and his duties. 4. Complaints. 5. Questions and answers.

It goes into methods of studying possibilities of your territory and making your own canvass of farm machinery on individual farms. How the agent and salesman can co-ordinate their efforts to develop new business and give the service that holds accounts. How the market for other products than gasoline and motor oil can be worked up. Selling through service stations. Handling of complaints and other marketing problems. Price $2.50.

NATIONAL PETROLEUM NEWS · 1213 W. 3rd St. · Cleveland, Ohio

New Equipment

AND THE MANUFACTURERS

Recorder

If, instead of reading about a piece of equipment, it is preferred to examine it at first hand, Leeds & Northrup Co., Philadelphia, has gone a long way toward meeting this preference by issuing a novel folder to demonstrate its Silver-Anniversary Micromax recorder.

Cut to the actual shape of the recorder, its effect is almost to put a half size model in your hands. The door of the case can be opened, then the chart carriage swung out, and finally the whole mechanism, to see, front and back, all parts of the mechanism.

The instrument can be used to record temperature, chemical concentration, pH, per cent CO_2, smoke density, liquid level, speed, frequency, load, voltage, etc. The folder is known as Die-out ND(1).

* * *

Furnaces

Describing at greater length the supported wall construction, Bulletin No. 1 of the Geo. P. Reintjes Co., Kansas City, tells the advantages of its recently announced furnace constructions for industrial processes.

* * *

Belt Album

An Album of Familiar Belts, a folder containing 25 reproductions of photographs of interesting and unusual installations of transmission belts in a variety of industries and a number of studies made by Margaret Bourke-White, chief photographer for *Life*, the new picture magazine, at the U. S. Rubber Products Co. laboratory and factory in Passaic, has just been released.

* * *

Airplane Fire Equipment

An attractive new 12-page color brochure describing the Lux fire extinguishing system for airplanes is being distributed by Walter Kidde & Co., Bloomfield, N. J.

The safety equipment now being fitted to privately owned planes is said to be identical to that used in over 90 per cent of modern transport planes. Lux carbon dioxide gas is stored in lightweight cylinders and discharged throughout the engine compartment by a remote control valve on the instrument panel.

* * *

Lift Modernized

The United States Air Compressor Co., Cleveland, has recently improved its drive-on type lift to better serve the present design of automobiles.

The cross head of the new "Tailor Made" lift is only 18 inches wide. There is no obstruction on either end of the runways as all tie rods of previous design have been eliminated so that the front and rear of the car, where 90 to 95 per cent of the lubrication points are located, are free and accessible.

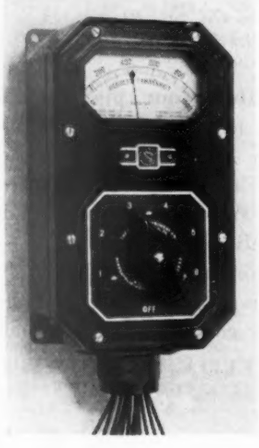
Runways are wide enough to take dual tires of delivery trucks. Wide rollers underneath the ramps prevent them from marring the floors.

* * *

Pyrometer for Diesels

Pyrometer newly designed for diesel engine service is announced by The Brown Instrument Co., Philadelphia. The instrument is available in three temperature ranges, 0-1000°, 0-1200°, and 0-1600° F. and with the following combinations of switch points: 4, 6, 8, 12, 16 or 24.

The measuring system is provided



with a special neutralizer having a negative temperature coefficient—thus permitting use of heavy springs. The case is of molded bakelite with integral dial type switch. Calibration is within one per cent of full range in the normal operating zone, it is said, and within two per cent outside that zone.

* * *

Steam Hose

U. S. Royal Asbestos Cord Steam Hose Official P-6031, a new addition to its line of steam hose has been announced by U. S. Rubber Products, Inc. Tests conducted chiefly in oil refineries where the new hose is expected to find its most important uses are said to have proved it highly serviceable and easy to handle.

Four plies of asbestos cords are wound spirally in alternating directions in this hose and are cushioned in a layer of rubber. Sizes range from an inside diameter of one half inch to one and a half inches by quarter inches. The pressure range is from 175 to 200 pounds. Maximum lengths are 50 feet.

Lube Dispenser

Particularly advantageous in dispensing hypoid gear lubricants, it is said of the new Standix Lube Dispenser of The Lubrication Corp., Chicago.

In operation, a one, two or three-pound can is loaded into the dispenser, where a knife arm pierces it and allows the discharge tube to travel to the bottom of the container. With an air hose connected and discharge tube locked in place, the operator merely presses a trigger to empty the can. No internal discs, pistons or special can construction is involved, it is said. The unit will also handle a variety of lubricants.

* * *

Light Insulating Brick

For use behind refractory walls in cracking furnaces, a new 2000-degree insulating brick, announced by Johns-Manville Corp., New York, is said to be unusually light in weight and to have unusually low heat capacity. Weighing less than 1.7 pounds per standard 9-inch equivalent, its heat capacity is less than one-quarter that of ordinary refractories. Its thermal conductivity is less than one-sixth that of fire brick.

The "JM-20", as it is termed, can also be used for direct exposure to 2000° F. wherever there is no flame impingement, slag action or mechanical abrasion.

* * *

Lighting Problems

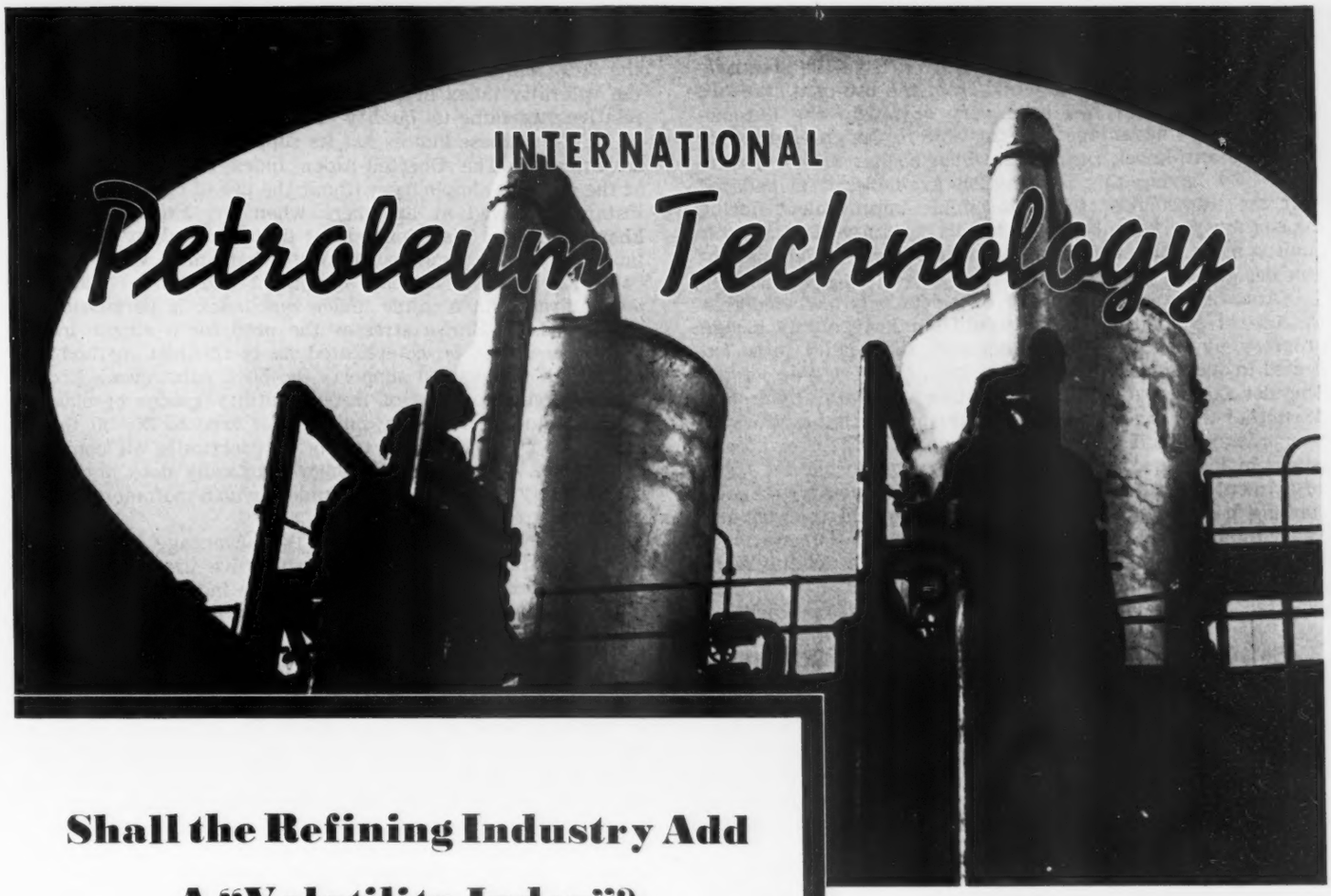
Commonly encountered problems of factory lighting and their correct solution are discussed in a new 36-page handbook of the Benjamin Electric Mfg. Co., Des Plaines, Ill., entitled "A Manual of Factory Lighting Practice." Definite recommendations, installation diagrams, and equipment specifications are given in plain non-technical language.

* * *

Rubber Suspensions

Perfection of rubber suspensions for heavy factory units is opening an era of freedom from vibration and noise, according to J. D. Tew, president of The B. F. Goodrich Co., whose engineers have developed vibro-insulators as a means of easing nervous strain and fatigue of employes working in buildings containing heavy machines. Catalog Section 7900 gives a complete discussion of the Vibro-Insulators.

ADVERTISING PAGES REMOVED



Shall the Refining Industry Add A "Volatility Index"?

By ARCH L. FOSTER, *Technical Editor*

● The question of the development and adoption of a "volatility index" has agitated the petroleum and natural gasoline industry's technical leaders for four or five years. Technologists are generally agreed that, of the different properties of motor fuel, anti-knock rating and volatility are the two most important in determining the over-all quality of a fuel from the practical standpoint.

In a number of technical meetings it has been agreed by many of our leading technologists that a volatility index is both desirable from the fuel refiners' viewpoint and useful for the automotive engineers' situation. Yet no organization has taken the lead in developing, improving or adopting an index which could be used by both industries to designate, according to a relatively simple basis, the comparative volatility characteristics of motor fuels.

Volatility in fuels is of primary importance to the automotive engineer in designing carburetor and fuel systems, in providing the proper cooling and heating for engines and for fuel systems and ignition design arrangements to insure satisfactory car operation under the widest expectable and also under normal operating conditions. Such an index is, or could be, of the greatest use to the refining industry, in effecting the standardization, not of fuels themselves, but of means of designating the average volatility ranges or grades of fuels marketed.

The automotive designer could much more simply design fuel and carburetor systems according to a given plan, or to handle a given series of fuel volatilities. It is conceivable that simple adjustments could be made on fuel and cooling system whereby the system could be adjusted to suit a given class or grade of fuel volatility. The so-called "octane selector" has solved a similar problem for fuels of varying anti-knock quality. It is understood that more than one refiner is using the equivalent of a volatility index in adjusting the volatility variation of fuels he

IPT Contents

Three Phases in Which Lubricants May Operate ...by A. W. Burwell and J. A. Camelford .. 90
The third article in a series studying the theory and practice of lubrication; discusses full fluid film, adsorbed film, and boundary phases of lubrication.

55% of Estimated Final Recovery Achieved by Oklahoma City Field 95
Discovered in December, 1929, the Oklahoma City Field has passed its peak. Production costs are increasing each year as natural flow ceases and some form of artificial lift becomes necessary.

Methods for Handling Increasing Salt Content Of E. Texas Crudes 96
Salt in East Texas crude is increasing, becoming a refining problem. In this article East Texas refinery operators discuss practical ways and means for salt removal, and the details of de-salting operations employed.

1936 World Consumption of Oil Products ... by V. R. Garfias and E. V. Whetsel 97
Detailed data showing the consumption of petroleum products by the countries of the world. Consumption has grown in most countries since 1934. In a few cases, notably France, consumption decreased in 1936.

markets to the seasonal temperature changes throughout the country.

One of the major advantages derived from the standardization of anti-knock quality and from the use of a standard octane rating index has been very obviously the automotive engineer's advantage in being able to design engines for fuels, the anti-knock ratings of which he has known beforehand. By having this information available, it is believed that the tremendous strides in engine improvement during the last five years can be traced to this certainty of anti-knock quality more than to any other single factor affecting engine design.

Automotive engineers have very definitely indicated that the use of a volatility index would similarly aid in design progress, by indicating to the engineer the quality to be expected in fuels marketed by the refiner. Gilbert Way, of the Chrysler Corp., stated last year, before the Natural Gasoline Assn. that the range of variation in the 50 per cent evaporated temperature of fuels is rather wide, about 70 degrees spread being indicated as giving satisfactory performance. The adjustment of automatic chokes, of "hot spots" for good starting performance, of manifold heating and cooling, and other factors could be accomplished more satisfactorily if the volatility of fuels could be designated in a definite manner, beforehand, in the opinion of a large number of fuel experts.

Two Volatility Indices Proposed

So far two proposals have been advanced for a volatility index, both based on a relatively simple system and using the Engler distillation data in calculation of the index. The simpler is that of Oberfell and Alden; the index is taken as the numerical difference between the temperature on the Engler curve at 50% evaporated and 284°F., the maximum standard temperature for the 50% point in federal motor fuel specifications. This index has the attraction of extreme simplicity, requiring the simplest of calculations.

A slightly more complicated index yet one which is essentially simple and easy of determination, is that proposed in 1935 by Hebl and Rendel. (See Nat. Pet. News, July 24, 1935, page 36 et seq.) These experimenters developed a chart based on the temperatures of the Engler curve at the 20% and the 70% evaporated points, from which chart the volatility index in terms of an arbitrary scale indicating relative "warming-up quality" may be read instantly.

Each of these indices has its supporters, and each has its advantages. The Oberfell-Alden index has the advantage of the greatest simplicity, without the use of charts or curves, instantly arrived at anywhere when the Engler data are known. Gilbert Way pointed out that fuels might be classed into two or three grades at most; that small variations in volatility are not seriously important and that a wide numerical range in a grade under this index is permissible.

Dr. G. G. Brown stresses the need for a simple index, that it need not be complicated as is the test method for anti-knock rating, and supports the 50% point idea. Brown has suggested a series of three volatility grades or classes, divided into the volatility numbers of zero to 30, 30 to 60, and 60 to 90, this range taking in practically all commercial fuels. The zero to 30 range practically does not exist, leaving only two ranges or grades, which automotive men say is very satisfactory.

The Hebl-Rendel index has the advantage of considering two distillation points and exhaustive investigation has shown, according to the authors of the index proposal, that the temperatures at these two points invariably indicate the volatility properties of the fuel. Without doubt the arbitrary scale used in this plan can be similarly subdivided into two or any other desirable number of grades or classes, as may be determined by the technologists.

A huge number of arguments for, and possibly against, the adoption of a volatility index may be marshalled. Because of the usefulness of such a plan, whatever the details of it may be, to refiner and automotive engineer alike, it may be highly desirable for the industry to take up seriously the matter of working out a generally acceptable index by which volatility ratings may be indicated in a more exact and generally accepted standard than is the case at present.

Cleanliness is the petroleum chemist's first law. Chemical glassware is handled as carefully as surgical instruments, to make possible accurate laboratory work

It's Dubbscracked gasoline

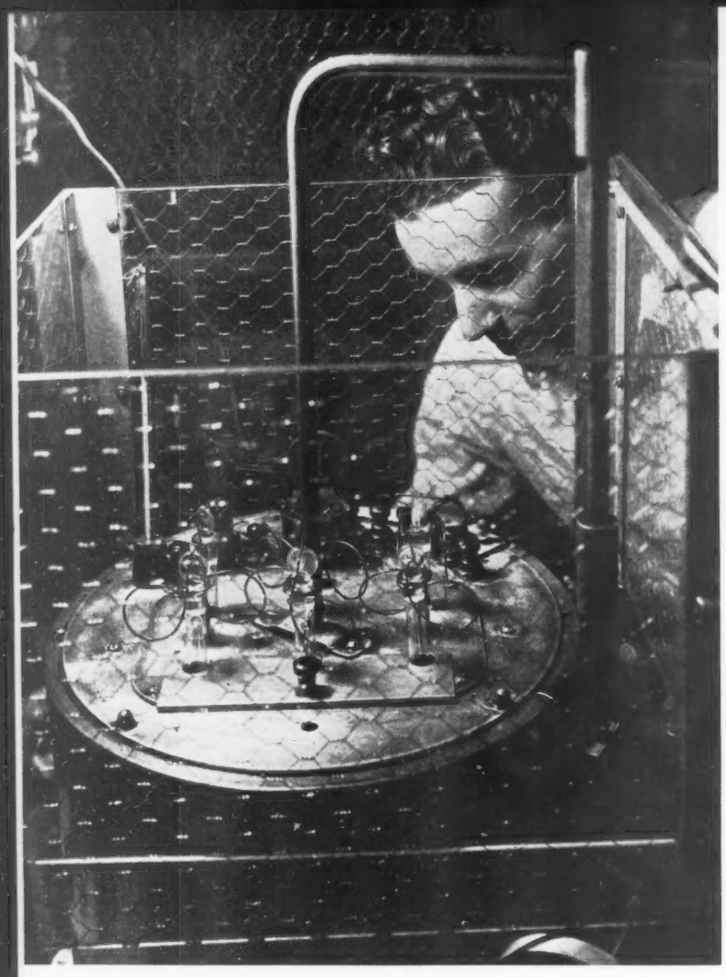
OKTAN BENZIN—that's the word they have for it in Czechoslovakia It means anti-knock gasoline

The Apollo refinery in Bratislava sells its gasoline as OKTAN BENZIN and it is Dubbscracked gasoline Bratislava is a long way from Tulsa but Dubbscracked gasoline is always anti-knock gasoline—in every country and in every language

Dubbscracking pays

Universal Oil Products Co
Chicago, Illinois

Dubbs Cracking Process
Owner and Licensor



By confining samples of lubricating and other oils along with oxygen at elevated temperatures, chemists find out as in the Sligh Oxidation Test, what effect the heat and atmospheric oxygen will have in producing sludge in service

THREE PHASES In Which Lubricants MAY OPERATE

By A. W. BURWELL* and J. A. CAMELFORD*

IN PREVIOUS papers the authors have deprecated the lack of definite common understanding of terms used frequently in the literature of lubrication technology.

Complete agreement has yet to be arrived at by laboratories conducting research in lubrication problems concerning many points. Certain phenomena have been observed repeatedly by different experimenters, with results in reasonable agreement. However, various widely differing interpretations have been placed upon these results, and, in addition, attempts have been made to express in rational and concise terms the results of somewhat vague and indefinite work.

The laboratory of the authors has been engaged for the past four years in an exploration of the behaviour of lubricating films under controlled conditions of pressure, temperature, journal speed, oil supply, and other factors bearing directly upon the lubrication of a modified journal bearing. This work included examination of many types of petroleum oils, fatty oils, and lubricants compounded with different addition agents.

In plotting data observed when the bearing was kept at constant temperature with varying pressure it was early seen that, in the range of pressures employed, the coefficient of friction-pressure curves were all similar in structure although great differences in coefficients of friction were observed when these curves were compared.

Fig. I shows four typical coefficients of friction-pressure curves, which are representative of the accumulated data obtained. It will be noted in each case that the curve may be divided into two parts.

(a) a descending portion where the coefficients of friction diminish with increase in pressure.

(b) an ascending portion where the coefficients of friction increase with increase in pressure.

The nature of these curves makes us pause at this point. Accepting Wilson's and Barnard's interpretation of the curve submitted by them in part I of their classical paper on the mechanism of lubrication**, the left hand portions (a) of our curves are those of full fluid-film lubrication. The point at which (a) and (b) meet is obviously the critical point of minimum friction described by them. Our problem, therefore, is to find a satisfactory interpretation for the second part of our curves. There certainly is increase in friction but no abrasion or metal-to-metal contact over the wide range of pressure employed. To describe this as the "region of partial lubrication" is incorrect, although the conclusions drawn from the meagre data given by Wilson and Barnard have proved correct to a very great extent. The following conclusions may be arrived at safely from examination of Fig. I. In the second portion of the curve;

The viscosity of the lubricant as a whole has no part in the effective functioning of the lubricant;

The "oiliness" of the oil is acting efficiently to separate the metal surfaces;

The range of pressures throughout which the lubricant will function effectively is not predictable beyond the limits of the observation.

Much more definite and helpful information has been

*Alox Corp.
**Jour. Ind. Eng. Chem., 14, 8, p. 682.

FIG. 1

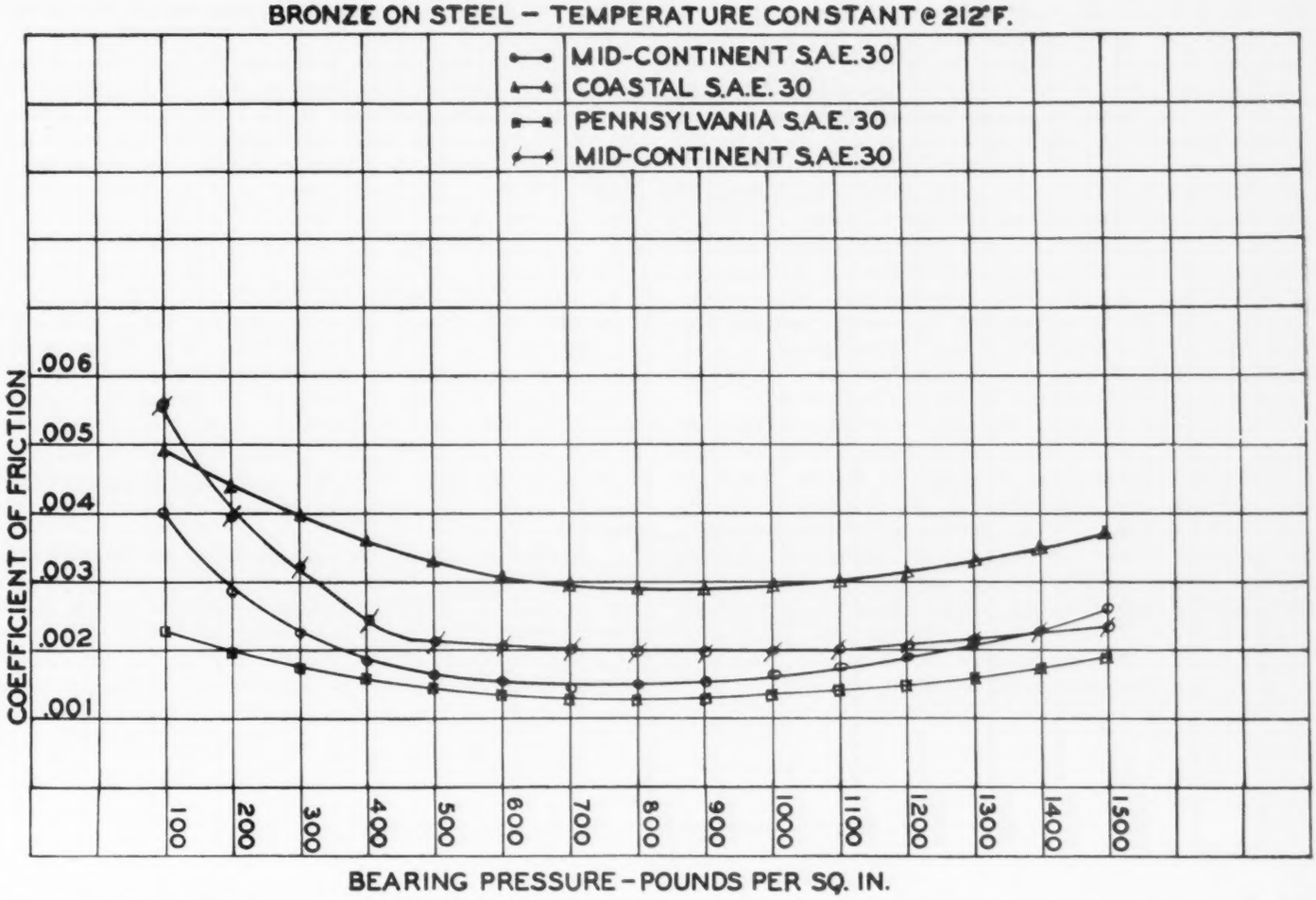


Fig. 1—Coefficient of friction-pressure curves, showing the lubricants operating in two phases, first the full fluid film, and next the "adsorbed film" phases

obtained from a study of constant pressure and varying temperature relationships. A great number of actual breakdowns have been made and the coefficient of friction-temperature curves have been very interesting. Fig. 2 shows two tests made on Mid-Continent SAE 30 oils. One was treated with a small quantity of an addition compound while the other test was made on the straight petroleum oil.

In the case of the straight petroleum oil a lowering of coefficient of friction was noted between 140 degrees F., and 300 degrees F., and immediately thereafter the coefficients of friction rose exceedingly rapidly, and film rupture was complete at 310 degrees F., resulting in seizure of the bearing.

In this case we obviously have a viscosity-temperature effect in the region of full fluid-film lubrication between 140 degrees F., and probably about 220 degrees F. From this point to 300 degrees F., since there is no further diminution of the coefficient of friction, such "oiliness" as the oil does possess comes into action and permits the bearing to operate freely and properly between these temperatures. Between 300 degrees F., and the temperature of breakdown there most probably exists metal-to-metal contact, with frequent rupture and reformation of the lubricating film, until the temperature becomes too high to permit this reformation to continue. Film rupture is then complete and we have seizure of the bearing.

*(Note: In these tests a light fuse was placed in the motor line so that slight overload was sufficient to stop the mechanism without serious injury to the lubricating surfaces of the bearing. Resurfacing the soft bearing surfaces was therefore readily effected by subsequent running-in for a short period of time — two to four hours.)

Let us now consider the curves of the compounded oil which had the same viscosity as the straight petroleum oil at 212 degrees F. There is a lowering of coefficient of friction between the temperature of 140 degrees F., and 280 degrees F., which may be taken as a temperature-viscosity effect. Between 280 degrees F., and 310 degrees F., there is a flattening of the curve which can only be interpreted as being due to "oiliness" effect. To the viscosity of the oil as a whole this effect cannot be ascribed in this region, and it is a necessary corollary that polar or "oiliness" compounds are solely responsible for the continued separation of the metal surfaces.

While we say that the "oiliness" compounds are solely responsible for the separation of the metal surfaces we do not contend that the lubricating film consists of these compounds only. It is quite probable that there are other materials present in solution in the film which are taken from the complex mixture which comprises the lubricant. These materials may modify the behavior of the film within wide limits with respect to film drag, corrosion or other features.

Beyond 310 degrees F., until a temperature of 360 degrees F., was reached a remarkable lowering of coefficient of friction exists. This laboratory can conceive of only one rational explanation for this phenomenon. This is that the "oiliness" film resembles a plastic solid rather than a viscous liquid and that it becomes liquid upon application of further heat when lowering of the coefficient of friction denotes a viscosity-temperature effect upon this film.

This explanation pertains simply to the particular

curve being studied. "Oiliness" or "adsorbed" films may be of any density or physical condition—solid, viscous, or extremely fluid, and will vary with each oil examined.

Again, we would call attention to the fact that transition from the full fluid-film to the "oiliness" film, or from the "oiliness" film to the region of boundary lubrication is very rarely abrupt or sharply defined. There are several specific instances in which rapid change may occur as for example examination of a highly refined oil such as a water-white paraffine or white oil to which polar substances may have been added to increase their "oiliness".

From 360 degrees F., to 400 degrees F., which was the limit of the test, an increase in coefficient of friction was observed, the rate of which increase was progressively greater with rise in temperature. This would indicate that film rupture and reformation were taking place, that is, that the lubricant was operating entirely in a range of boundary lubrication and that breakdown was imminent.

Further study shows that this particular curve affords an excellent opportunity for differentiating between the film types. In this one example, we see the effects of full fluid-film lubrication which is the first phase, extending from 140 degrees F., to 280 degrees F. The secondary or "oiliness" phase, extends from 280 degrees F., to 360 degrees F. Beyond this we are actually in the region of boundary lubrication where metal-to-metal contact occurs and where film rupture and reformation take place until finally conditions of temperature or pressure or both prevent the film from functioning even intermittently.

We have now observed the effects of full fluid-film lubrication, "oiliness" lubrication and boundary lubrication. It is now advisable to review the situation as a whole and to try to arrive at the possible mechanism of the lubrication of a journal bearing.

When the mechanism is brought from a state of rest to that of operation it is necessary first to overcome static friction. Individual members of the system have to achieve a motion opposed to other members of that system which may remain at rest or acquire a motion opposite in direction or with a different velocity or a combination of the two to the members first noted.

In circumstances such as these two factors have to be taken into consideration; first, the inertia of the system has to be overcome and secondly the lubricating system frequently does not operate until the rest of the mechanism starts as in the case of automobile engine operation. In this instance a very restricted quantity of lubricant will be available to diminish the friction between the moving parts and this lubricant must function only by reason of its "oiliness". From the reasons given above, it will be readily appreciated that static friction is invariably much higher than a kinetic friction, experienced in any system.

When the system is in operation and an adequate supply of lubricant is reaching the bearing it is desirable in all cases to have full fluid-film lubrication. This is effective assurance against metal-to-metal contact and, normally, power consumption due to oil drag is not unduly high. Bearing design is the most important single factor in the maintenance of full fluid-film lubrication. If, due

FIG. 2

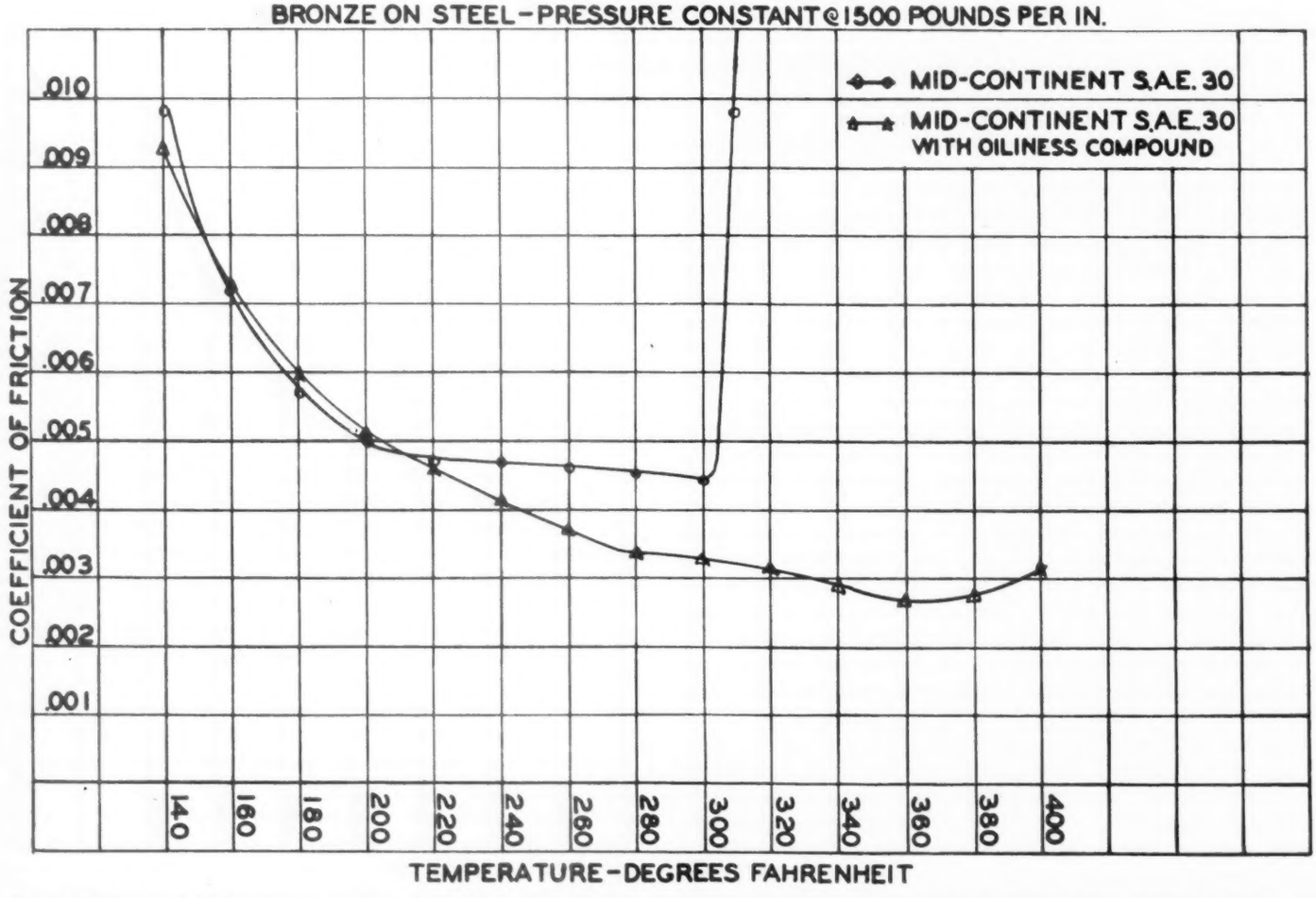


Fig. 2—Coefficient of friction-pressure curves of a straight mineral oil, and the same oil to which an "oiliness" compound has been added. Note that the pure mineral oil reaches a temperature at which the coefficient of friction rapidly approaches infinity, that is, seizure, while the compounded oil continues indefinitely in the "adsorbed film" phase or boundary phase, without failure

It's hard to believe..but

Using Sharples Centrifugal Acid Treating the treating loss will be 30 percent or more lower than by conventional agitator treating.

One may refine residual cylinder stocks without dilution to produce a low acid sour oil and a relatively oil-free sludge.

Incidentally, freedom of oil from sludge facilitates contacting and improves filter thruput rate, consumption of chemicals is reduced per gallon of finished product and, more than incidentally, the Sharples Continuous method makes it possible to control quality with complete accuracy.

Sharples Acid Treatment of distillate lubes is another interesting story.

THE SHARPLES SPECIALTY COMPANY • PHILADELPHIA • PA.

to faulty bearing design, or to extraneous circumstances, it is impossible to maintain this type of lubrication, it will be seen that it is necessary to use a highly "oily" type of lubricant so that an unbroken film be maintained between the metal surfaces. If the lubricant is deficient in this quality film rupture occurs with re-formation of the film, this cycle recurring many times until increase in temperature, due to the metal-to-metal contact, causes final breakdown with loss of metal, abrasion and seizure of the bearing.

It is not within the province of this paper to describe "oiliness" or to deal with the somewhat elusive and widely misunderstood properties ascribed to it. However, a much clearer understanding of the mechanism of lubrication will be gained if it is always remembered that lubricating oils are complex mixtures consisting mainly of hydrocarbons, but almost always containing bodies which contain other elements, for example, oxygen, etc. It is not logical, therefore, to visualize a mixture such as this acting as a homogeneous body when subjected to elevated temperature and pressure. When petroleum oil is used for lubricating a bearing, there must be a preferential attraction of some bodies to the metals constituting the bearing, and **we cannot justify any assumption that the viscosity of the lubricating film, whether the bearing is operating under full fluid-film or not, is identical with the viscosity of the lubricant as a whole.**

If this assumption were true, then, irrespective of the type of lubricant used, all lubricants of identical viscosity at the operating temperature would give identical coefficients of friction in the full fluid-film region under identical conditions of test. Experimental results have not borne this out. Very wide differences in coefficient of friction in the region of full fluid-film lubrication have been repeatedly obtained. In the region where "oiliness" is responsible for maintenance of lubrication the differences are even more striking. This region was originally described by Wilson and Barnard as the "region of adsorbed film lubrication" and this term has remained in use till the present time. It is not fully satisfactory, as it is questionable whether a physical surface adsorption is responsible for this peculiar action of lubricants, but it will suffice as designated for the present.

To summarize the conclusions arrived at in this paper:

A lubricant is capable of functioning in three distinct regions without permitting complete breakdown:

(1) Full fluid-film in which ordinary increase in temperature will cause lowering of coefficient of friction.

(2) Adsorbed film or "oiliness" region in which the action of the adsorbed constituents or "oiliness" constituents is not predictable from physical examination of the lubricant.

(3) Boundary lubrication where the lubricating film is repeatedly destroyed and reformed and metal-to-metal contact occurs. In journal lubrication particularly this region is to be avoided if satisfactory lubrication is to be maintained.

Even in full fluid-film lubrication there is no definite knowledge that a lubricant acts as a homogeneous mass. Experimental work shows that there are differences in coefficient of friction obtained under identical conditions which may be explained only by assuming that there has been a selective segregation at the metal surfaces of some constituent of the lubricant.

In adsorbed film lubrication the film may be liquid or solid according to the nature of the "oiliness" constituents present in the lubricant. If solid, the coefficient of friction will remain fairly constant or perhaps show a slight increase with rising temperature; if liquid a diminishing coefficient of friction will result under these conditions arising from a film viscosity-temperature relationship.

In boundary lubrication there will invariably be an increase in coefficient of friction with increase in temperature due to more repeated rupture of the lubricating film and progressively less frequent re-formation of the film resulting eventually in breakdown.

The conclusions arrived at in this paper are not intended to be regarded as dogmatic statements of fact. They are the interpretations which the authors have placed upon results submitted on the curves given here. These curves are representative of the results of more than 2000 tests made upon comparatively exhaustive series of lubricants. It is our intention to stimulate discussion and criticism of the points raised above and we should appreciate communications from other workers in this field.

It is hoped shortly to present a paper dealing in more detail with the phenomena of "oiliness" and adsorbed film lubrication.

Promotions in Geological Dept. Of the Union Oil Company

LOS ANGELES, Feb. 22.—Earl B. Noble, formerly assistant manager of exploration for Union Oil Co. of California has been appointed chief geologist, according to Desaix B. Myers, manager of exploration. Noble is a graduate of Yale, with post graduate work in geology at the University of California, and entered the employ of Union Oil Co. as a geological scout in 1923.

For a number of years prior to his association with Union he was a member of the State Mining Bureau, Division of Oil and Gas, and is a past president of the Pacific Coast section of the American Association of Petroleum Geologists.

Named as assistant chief geologist is H. W. Hoots, who is well known as the author of a number of government bulletins on the geology of parts of western Texas, Wyoming and California, written when he was in charge of certain field investigations for the U. S. Geological Survey. He is a graduate of Stanford, and joined the staff of the Union Oil Co. as geologist in 1928.

Earl B. Noble, chief geologist, Union Oil Co.

H. W. Hoots, assistant chief geologist, Union Oil Co.

55% of Estimated Final Recovery Achieved by Oklahoma City Field

By LAWRENCE E. SMITH
N. P. N. Staff Writer

TULSA, Feb. 22.—When a champion grows old and retires from the competitive wars it is news and the chroniclers set about to write his history.

The Oklahoma City oil field was a champion. It went into virtual eclipse because of natural decline and by 1935 its performance had become quite routine. Then it flared up because of an extension which carried drilling to the steps of the state capitol and the "Mansion area," as it is called—the governor can almost reach out his back window and pat an oil well in the face—was the scene of an intensive townlot drilling campaign that kept the rotary outfits going up to the last quarter of 1936. This secondary boom is about over.

Now, with the imminent lifting of proration from the field for the first time since 1929, the chronicle of this champion is at hand. Three engineers of the U. S. Bureau of Mines have completed Report of Investigations No. 3330, an engineering report which sets out the history, geology, production records, operating practices and numerous other phases of the Oklahoma City field.

Authors of the report are H. B. Hill, supervising engineer of the bureau, Dallas office; E. L. Rawlins, senior petroleum engineer, Bartlesville experiment station and C. R. Bopp, assistant petroleum engineer, Bartlesville station. The report is one of the most comprehensive ever made on an oil field.

Field History

The field was discovered in December, 1929, by the Indian Territory Illuminating Oil Co. and, from the outset, was a problem in development control. An early plan to drill conservatively, spacing wells one to each 40 acres, failed. The discovery well produced from lime formation; subsequently, the Wilcox sand was opened to production on the flank of the anticlinal structure and this proved to be the most prolific of the four separately classified producing horizons. The others were known as the lower Simpson and the fault line zone. The latter was of comparative unimportance.

"Since the discovery well was completed . . . 1280 producing oil and gas wells have been drilled in the Oklahoma City field," the report says. These figures are as of July 1, 1936. Since that time additional completions have been recorded. The number of producing wells in the field at the end of January, 1937, was 1039 of which 167 were in the "Mansion area."

"The present proved area of the field includes approximately 15,000 acres, of which about 1900 acres are in the Arbuckle, 10,000 acres are in the Lower Simpson (this includes 3800 acres overlap in Wilcox and Arbuckle), and 6900 acres in the Wilcox zones. The past recovery of oil from the Arbuckle zone (July 1, 1936) was approximately 17,600,000 barrels, compared with 85,000,000 barrels from the Lower Simpson zone and 221,500,000 barrels from the Wilcox zone."

Total of those figures shows the recovery from all zones to July 1, 1936, to have been 324,100,000 barrels. The authors brought the overall figure a little closer to current date and said that to Oct. 1, 1936, gross production had been approximately 329,000,000 barrels and on this basis they estimated that about 55 per cent of the estimated final recovery had been realized.

Field Total Given

Company figures, not included in the bureau report, show the field total on Jan. 1, 1937, to have been 348,596,936, barrels, of which 15,941,597 barrels had come from the newer development in the north end of the structure, or "Mansion area."

Wells that have been abandoned or are now dormant contributed a total of 26,945,915 barrels.

Water appeared early in the Arbuckle zone, into which the discovery well was drilled and that zone has been abandoned except for a half dozen wells. Peak number of wells in this zone was 85, in May, 1930.

The Simpson zone, in which several pay formations were productive, was the second area opened to development and this came as a natural result of the attempt to extend the Arbuckle lime area. Early in 1930 the Wilcox sand zone was found productive and this quickly brought on a townlot drilling campaign in the then northern part of the field. From that time on were about three years of turmoil and trouble. State authorities, working under a statute which lost its effectiveness when subjected to court test, were unable to control the flow and the field preceded East Texas as a market breaker and a "hot" oil area.

The total production of the field in 1929 was 8,211,172 barrels and its rapid rise is shown by the figures for 1930, which was 33,635,003 barrels. In 1931 it produced 45,763,076 barrels. Due to martial law proration the production for 1932 was kept down to 34,079,358 barrels but 1933 saw it soar to 63,659,195 barrels. Peak month for the field was August, 1933, when 8,289,059 barrels were produced. The next year's production was only slightly under that of 1933, a total of 62,212,871 barrels being produced in 1934.

Preliminary figures for 1936 indicate a production of approximately 49,000,000 barrels.

Refineries and Gasoline Plants

Early in the field's history, skimming plants and refineries were established, some of them old plants that had been built years before and shut down after short periods of operation. A total of 15 is listed by the Bureau of Mines report and several of these operated under different names. Seven were active at the time the report was written and these had combined capacity of 8000 barrels. Their current rate of operation, however, is far below rated capacity.

Seventeen gasoline plants were built in the field during the period covered by the bureau report and three have been added since. Three of those listed have been shut down and one converted into gas-lift plant. The volume of gas produced with the oil was huge and the operation of the field was attended by tremendous gas wastage, particularly in the first three years of the field's life. Gasoline plants processed great quantities of gas, the peak year for this operation being 1933 when 208 billion cubic feet were so handled. Recovery of gasoline that year was 99,854,056 gallons, an average of 0.495 gallons per thousand. There has been a gradual increase in recovery per thousand cubic feet and the report shows that the yield for the average of the first six months of 1936 was 1.586 gallons and the accumulative total to that time was 655,371,016 gallons recovered from 907,701,819,000 cubic feet, or an all-time average from and including 1929 to July 1, 1936, of 0.722 gallons per thousand cubic feet.

Production Costs High

Well depths the field over ranged around 6500 feet and it has been an area of high cost production. The bureau report sets up drilling costs per well as $155,000 in 1929; $110,000 in 1932 and $85,000 in 1934. To these first costs, of course, are added lifting costs. As the field aged, such costs became heavy when natural flow ceased and some form of artificial lift was installed. Nearly every-

(*Continued on page* 99)

Methods for Handling Increasing Salt Content Of E. Texas Crudes

By ARCH L. FOSTER

Some 50 members of the Arkansas-Louisiana section of the Western Petroleum Refiners Association met Feb. 12, to discuss the increasingly important problem of the elimination of salt from East Texas crudes, the percentage of which is steadily increasing, and its presence in crude becoming more prevalent throughout the world's largest oil field.

Such meetings are monthly program features of this section, a practice which has been developed during the last several years by L. C. Grosjean, secretary of the section.

KILGORE, Texas, Feb. 22

TEMPERATURE and time control the efficiency of salt removal processes, said W. S. Cazort, Jr., chief chemist of the Premier Refining Co., Longview, Texas, discussing salt removal from East Texas crude before the Ark.-La. section of the Western Petroleum Refiners Association meeting here recently.

Salt has been showing somewhat in East Texas crude for some time, it was stated, and the problem of salt removal at the refinery is fast becoming general, speakers stated. The salt is showing most on the southern, western and northern edges of the field, it is stated, although its presence is rather general throughout the field, with the possible exception of the eastern edge.

Optimum temperatures for salt settling from preheated crude are 220° to 240° F. for East Texas, it is stated, and a minimum pressure of 110 pounds on the settling drum is maintained. These conditions give a minimum settling time of 50 minutes; that is, the settling drum must be of such cubical capacity that the oil-salt mixture remains in the drum for that minimum length of time for satisfactory removal. Three to five per cent of water must be added to the crude, to dissolve the salt, experience has shown.

The viscosity of the crude, its surface tension or interfacial tension between oil and water phases, and the difference in specific gravities of oil and water phases are all important factors to be considered in operating a suitable salt removal method, Cazort pointed out. All these factors affect the settling characteristics of the mixture; heat improves these properties in all cases, lowering viscosity and interfacial tension, and increasing the difference between the specific gravities, since oil expands in volume, that is, it reduces its specific gravity by expansion, at a greater rate than does water, for any given temperature rise.

Avoiding Vaporization

Provision must be made to prevent loss of the very light fractions of the crude during settling at elevated temperatures. This may be done either by placing the settling drum under pressure as indicated above, or by connecting the drum, equipped with a vaporizing dome or head, with a vapor line and fractionating tower. A 35.0° East Texas crude, containing approximately 2 per cent of salt, etc., has a viscosity of 43 to 47 seconds Saybolt Universal at 100° F., and a vapor pressure of about 9.5-10.5 pounds Reid, we are told. At 250° F. this crude will show a gage pressure of about 150 pounds. Therefore, if vaporization of light materials is to be avoided during settling, the pump discharge pressure must be held at about 200 pounds, to avoid pumping vapor pockets into the still tubes, with probable local overheating warping and oxidizing the latter, it is pointed out.

Briefly, the system now employed by most East Texas refiners is; three to five per cent of water is injected into the suction side of the charge pump, and the pump is thus used as a mixing agent to disperse this water intimately in the crude to dissolve the salt. The "watered" charge is passed to heat exchangers or sometimes to small auxiliary heater tube coils, raised to the desired temperature, and discharged through a diffuser pipe into the salt drum. This pipe is placed horizontally near the bottom of the drum, with a number of ¼-inch holes drilled in its bottom side, great enough to equal 10 per cent greater area than the cross-sectional area of the pipe. The end of this diffuser pipe is capped.

Drum Is Insulated

The horizontal settling drum of the cubical capacity needed to give the desired settling time, is heavily insulated to prevent heat loss. The relatively salt-free oil passes from the top of the settling drum to the pipe still or to whatever may be the next step in the distillation system. In some plants, instead of maintaining pressure on the drum sufficient to prevent vaporization of naphtha, the heated and settled crude is passed at relatively low pressure into a flash drum or tower, sometimes equipped with a few bubble trays, from which the light vapors are released and pass to the main or primary bubble tower. In either case the salt settling process is completed before the crude reaches the primary distillation heater.

Settling Temperatures

The actual conditions used for settling vary with different plants and with different types of operation. The minimum settling temperature has been found to be about 150° F., at which one refiner finds a settling period of 80 to 90 minutes necessary for proper settling. Another refiner has found that, at a temperature of 130° F., and atmospheric pressure, 16 hours are required for proper settling of this particular crude; at 250° F. and 185 pounds pressure to prevent vaporization, settling takes place in 60 to 90 minutes, which illustrates the effect of both pressure and temperature on settling speeds.

One operator states that these temperatures and pressures are satisfactory for salt concentrations up to about 150 pounds of salt per 1000 barrels. Above that concentration higher temperatures and pressures must be used to obtain the needed efficiency of settling. If properly adjusted, the operating conditions should reduce the salt concentration to about five pounds per 1000 barrels, or less, depending on the properties of the individual crude.

As another example of a successful method for de-salting, one refiner introduces hot water into the charge line immediately beyond the discharge point from the charge pump; the "watered" charge enters a heat exchanger with 1¼-inch tubes, and is subsequently flashed at about 186° F. into a 3 foot x 16 foot tower equipped with three or four trays, the light vapors are eliminated here, and the charge then goes into the settling drum. This operation removes from the crude up to 75 per cent of the gasoline fraction, relieving the load on the primary heater.

Two Troubles from Salt

Two major types of troubles arise from the distillation of salt-containing crudes in East Texas plants. The salt found there contains, besides sodium chloride, the chlorides of calcium and magnesium. The last named two salts decompose, speakers pointed out, under elevated temperatures, magnesium chloride starting to decompose to form hydrochloric acid, HCl, and magnesium hydroxide, MgO, by hydrolysis at about 300° F.

One problem is the deposition of salt, mainly sodium chloride, in tubes of heat exchangers and stills, forming a solid deposit which is or may be difficult and expensive to remove. The other trouble is corrosion, caused mainly by the HCl from decomposition of the chlorides mentioned, in towers, condensers, and elsewhere in the lower temperature areas. Some hydrogen sulfide corrosion appears to occur,

doubtless caused by the liberation of the sulfide from the decomposition of sulfur compounds, especially in cracking units.

Deposition Problem

One company finds that, with a two per cent salt concentration, the pipe still must be cleaned of salt deposits about every four days, when operating at 580° F. outlet temperature. This trouble appears to begin at a point past the heat exchangers which reach a temperature of about 400° F., where the crude reaches about 475° F. with the crude pumps operating at 250 pounds discharge pressure. It is a deposition problem. In one case exchanger tubes were so clogged that the pump stopped, unable to work against the back pressure. The introduction of steam cleaned out these tubes properly, permitting resumption of plant operations.

In another plant, however, steam was found insufficient to remove the caked deposit. After strong steaming, five or six layers of salt were found to remain in the tubes.

Opinions expressed by operators indicate that by the reduction of salt content to about four pounds per 100 barrels, deposition is eliminated, although corrosion is not necessarily eliminated until much lower concentrations are reached. Experience has shown that little or no deposit of salt occurs in locations where the heat is "soft," that is, heat added in exchangers or in convection still banks; more salt can be handled under these conditions than where radiant banks, for example, are operating at a high rate of heat input. Deposition is likely to occur wherever a rapid heat input rate is maintained, or where slow and gradual evaporation is taking place.

Where Corrosion Occurs

Corrosion has been found to occur chiefly at the point of condensation of steam and oil vapors. It also is found in some cases in heat exchangers and towers, as well as in rundown and storage tanks. One refiner has found no corrosion from settled crude when operating at 575° F., even when using steam in the fractionating tower. Many operators have experienced corrosion in their condensers, while others have had none. Part of this variation is due, it is believed, to differences in temperatures and time of exposure and to varying quantities of steam used, but doubtless more of the difference is due to better settling.

In one case, where a large percentage of the light naphtha fraction is flashed from a tower after preheating for the settler, the first or preheater stream is not corrosive. After heating the flashed crude in the pipe still the second stream, or the first from the still, does produce corrosion in the tower and condenser sections. The data on this problem are insufficient to enable the operators to draw a satisfactory conclusion as to its cause.

Corrosion in Tanks

In some refineries corrosion has been found to occur in the top rings and roofs of rundown and storage tanks. In these same tanks no corrosion has shown up on the bottom and lower rings. The concensus of opinion is that this corrosion is doubtless due to the presence of HCl and H_2S, either by the formation of iron chlorides and sulfides, or by the promotion of oxidation to form the oxides, since both of these reactions *may* occur, oxidation especially taking place in the presence of hydrogen sulfide. Absence of corrosion in the tank bottom, where hydrochloric acid and hydrogen sulfide might be expected in the water there, indicates that oxidation may be the chief offender in this situation, atmospheric oxygen being present above the liquid but not in contact with the lower, liquid-covered sheets.

A suggestion was made by F. N. Williams that, because of this variation, in refiner's experiences, the different laboratories should analyze the salt found in their own crudes, and that these analyses be made available to all members of the group. By comparing these figures, it is hoped that some of the variations and discrepancies in results and experiences may be explained.

Opinion of the operators present at the meeting was practically unanimous that the salt situation is becoming general rapidly, and that refiners must make plans for permanent installations of salt-removing equipment to reduce losses from both corrosion and salt deposition.

1936 World Consumption Of Oil Products

By V. R. GARFIAS* *and* E. V. WHETSEL*

(*Presented Before Annual Meeting of American Institute of Mining and Metallurgical Engineers, Feb. 17-19*)

IT IS estimated that world consumption of petroleum, its products and related fuels during 1936 reached an all-time peak of 1,757,778,000 barrels, an increase of 143,000,000 barrels over 1935.

As indicated in Table 1, world output of petroleum and related fuels exceeded demand by 92,510,000 barrels during the year, as compared to an excess output of 88,000,000 barrels during 1935. Production within the United States exceeded domestic demand by approximately 51,000,000 barrels in 1936, as compared to an excess output of 53,000,000 barrels in the previous year. Outside the United States production exceeded demand by 41,510,000 barrels in 1936 and by 35,000,000 barrels in 1935.

Table 2 combines excess production in the United States with the favorable balance of exports over imports, showing that stocks in the United States were reduced by 23,400,000 barrels in 1936, as compared to 22,447,000 barrels in the previous year. In the rest of the world excess output over demand combined with the excess of imports over exports from the United States indicates an unfavorable balance of approximately 116,000,000 barrels during 1936. Unquestionably a large portion of this balance represents an increase of stock in foreign countries, but a part is also due to imperfect consumption figures and the impossibility of obtaining accurate production statistics from such countries as Russia.

Table 3 shows the world's consumption classified by countries and according to principal products.

Table 4, world production of crude and related fuels by countries. Related fuels consist of natural gasoline, benzol, alcohol used as motor fuel, shale oils, etc.

As the figures of the table indicate, the petroleum industry within the United States showed some improvement during 1936. Withdrawals from storage, however, continue to be made possible by the favorable balance of exports over imports, but it must be emphasized that such favorable balance did not increase during 1936. In the world outside the United States, the industry despite increased consumption continued to increase stocks rapidly, indicating the approaching necessity of the curtailment of foreign output and the possibility that exports from the United States may continue to decline.

*Cities Service Co.

TABLE I

World Production and Consumption

(*Thousands of Barrels*)

Year	World Production	World Consumption	Excess Prod. Over Consump.
1932	1,362,039	1,348,407	13,632
1933	1,467,128	1,406,923	60,205
1934	1,562,834	1,507,599	55,235
1935	1,702,793	1,614,475	88,318
*1936	1,850,290	1,757,780	92,510

*Estimated from statistics available in December.

TABLE II

Changes in Stocks

(*Thousands of Barrels*)

Year	Excess Prod. Over Consump.		Excess Imports Over Exports	Excess Imports From U. S. A. Over Exports To U. S. A.		Total to Storage	
	United States	World Outside U. S. A.	United States	World Outside U. S. A.	United States	World Outside U. S. A.
1932	R-13,011	26,643	R-28,781	28,781	R-41,792	55,424	
1933	67,427	R- 7,222	R-60,254	60,254	7,173	53,032	
1934	26,164	29,071	R-64,013	64,013	R-37,849	93,084	
1935	53,027	35,291	R-75,474	75,474	R-22,447	110,765	
*1936	51,000	41,510	R-74,400	74,400	R-23,400	115,910	

*Estimated from statistics available in December.

TABLE III

1936 World Consumption

(Thousands of Barrels)

	Motor Fuel	Kerosine	Gas & Fuel Oil	Lubricants	Miscellaneous	1936 Total	1935 Total	1934 Total
United States	482,000	50,000	405,000	22,500	130,500	1,090,000	981,650	920,165
Russia	14,800	30,400	63,200	8,500	17,800	134,700	127,377	117,300
United Kingdom	38,500	6,400	27,000	2,900	4,100	78,900	76,213	72,170
France	23,000	1,490	13,000	1,640	3,200	42,330	40,523	40,555
Canada	17,500	1,990	15,600	1,060	2,000	38,150	36,610	34,692
Germany	17,000	990	12,200	4,020	2,900	37,110	33,636	29,231
Japan	8,100	1,500	14,750	1,900	1,900	28,150	25,327	22,948
Argentina	6,200	1,320	16,400	450	890	25,260	23,204	20,786
Italy	4,500	1,480	11,000	720	2,200	19,900	17,626	14,374
Mexico	2,540	620	11,500	170	2,500	17,330	16,938	16,334
Rumania	790	1,240	11,700	220	2,000	15,950	15,320	15,686
Netherlands West Indies	180	30	13,200	35	3,820	17,265	15,317	13,850
British India	2,480	6,500	3,800	990	1,300	15,070	14,604	13,865
Australia	6,800	1,170	3,340	460	670	12,440	11,909	11,099
Netherland East Indies	1,490	2,000	5,100	160	1,240	9,990	9,609	9,559
The Netherlands	3,480	1,830	2,400	380	890	8,080	8,582	7,620
Venezuela	590	30	1,200	35	5,900	7,755	7,135	6,241
Sweden	3,480	890	2,150	360	600	7,480	7,069	6,366
China	990	2,460	2,800	260	340	6,850	6,622	6,770
Brazil	2,510	750	3,280	180	70	6,790	6,602	6,185
Spain	2,800	190	1,650	100	210	4,950	6,560	6,581
Iran	430	980	3,200	200	1,500	6,310	6,163	6,003
Egypt	540	2,000	2,890	180	190	5,800	5,385	4,893
Union of South Africa	3,100	570	1,140	200	200	5,210	4,932	4,213
Denmark	2,200	560	1,640	160	290	4,850	4,680	4,937
Belgium	2,520	210	1,190	220	420	4,560	4,394	4,269
Cuba	490	70	3,750	40	110	4,460	4,381	4,356
Trinidad	105	70	3,800	30	290	4,295	4,133	2,782
Philippine Islands	1,000	580	2,400	80	130	4,190	3,971	3,464
Norway	1,190	305	1,980	95	110	3,680	3,531	3,510
Switzerland	1,830	190	1,150	160	40	3,370	3,356	3,373
Chile	650	60	2,750	75	40	3,575	3,338	2,151
New Zealand	1,990	160	1,240	80	115	3,585	3,315	3,299
Poland	970	1,010	600	400	300	3,280	3,215	2,933
Czechoslovakia	1,800	440	740	220	180	3,380	3,191	3,076
Iraq	310	220	2,080	55	690	3,355	3,108	2,198
British Malay	580	320	2,060	70	190	3,220	3,048	2,840
Hawaiian Islands	980	140	1,990	65	70	3,245	3,034	2,971
Austria	910	290	1,200	145	140	2,685	2,565	2,187
Uruguay	630	60	1,800	40	40	2,570	2,381	2,370
Panama Canal Zone	110	30	2,300	20	40	2,500	2,341	2,071
Algeria	1,300	400	340	110	130	2,280	2,192	2,100
Irish Free State	1,110	520	260	70	200	2,160	2,086	1,917
Peru	420	430	760	60	300	1,970	1,849	1,686
Greece	370	150	1,060	60	50	1,690	1,592	1,573
Porto Rico	490	70	990	35	40	1,625	1,538	1,451
Portugal	600	410	440	40	60	1,550	1,472	1,325
Hungary	420	400	450	90	100	1,460	1,419	1,615
Finland	580	360	140	95	95	1,270	1,226	1,215
French Morocco	770	95	110	40	130	1,145	1,102	1,079
Others	6,700	5,550	23,200	1,040	2,670	39,160	37,104	33,365
TOTALS	674,825	129,930	707,920	51,215	193,890	1,757,780	1,614,475	1,507,599

.All figures estimated from data available to December 1st.
Consumption figures include crude consumed as such, all its products and related fuels such as Benzol, Natural Gasoline, Alcohol used as Motor Fuel. Oil delivered to ships bunkers is included in consumption of country where deliveries made.

TABLE IV

(Thousands of Barrels)

	1935			1936		
	Crude	Related Fuels	Total	Crude	Related Fuels	Total
United States	993,942	40,735	1,034,677	1,097,000	44,000	1,141,000
Russia	176,688	800	177,488	191,000	1,000	192,000
Venezuela	151,523	700	152,223	163,000	800	163,800
Roumania	61,150	900	62,050	64,000	1,000	65,000
Iran	57,304	870	58,174	57,400	900	58,300
Netherlands East Indies	42,569	1,800	44,369	44,500	1,800	46,300
Mexico	40,234	300	40,734	40,500	800	41,300
Iraq	26,500	.....	26,500	28,200	.....	28,200
Colombia	17,618	400	18,018	18,700	500	19,200
Peru	16,835	1,200	18,035	17,400	1,300	18,700
Argentina	14,317	300	14,617	15,200	400	15,600
Trinidad	11,670	90	11,760	13,200	100	13,300
British India	9,277	100	9,377	9,600	100	9,700
Germany	3,054	5,900	8,954	3,100	6,200	9,300
British Borneo	4,974	100	5,074	4,700	100	4,800
Poland	3,973	500	4,473	3,800	500	4,300
Bahrein Island	1,265	.....	1,265	3,400	.....	3,400
Japan	1,848	130	1,978	2,400	150	2,550
Sakhalin Island	2,850	.....	2,850	2,840	.....	2,840
Ecuador	1,725	.....	1,725	1,850	.....	1,850
Canada	113	1,334	1,447	130	1,350	1,480
Egypt	1,215	40	1,255	1,200	50	1,250
Others	1,050	4,700	5,750	1,000	5,120	6,120
	1,641,694	61,099	1,702,793	1,784,120	66,170	1,850,290

1936 figures estimated from data to December 1st.
Related Fuels—Natural Gasoline, Benzol, Alcohol blended as motor fuels, shale oils, etc.

REVIEWS OF NEW REFINING PATENTS

Cracking. No. 2 067 730, issued Jan. 12, 1937; filed May 23, 1934; R. H. Price and R. V. Shankland, assignors to Standard Oil Co. (Ind.); one drawing; 6 claims.

• A three stage cracking process. Heavy oil to be treated is first subjected to a preliminary cracking operation of a viscosity breaking nature, such as to produce light clean gas oil relatively free from coke forming tendencies, with only a small production of gasoline. The resulting lightly cracked products are separated into heavy tar-like residue, light clean gas oil and gasoline. A heavier gas oil may also be separated if desired, and be recycled to the viscosity breaking cracking operation.

The light clean gas oil is then subjected to a drastic cracking operation by being passed once through a primary cracking zone at a relatively high temperature and under relatively high pressure. The lighter products are separated from a tar-like residue in an evaporator tower and then fractionated in a bubble tower to produce an intermediate condensate stock suitable for further cracking, preferably under low pressure in the vapor phase, and a final distillate. The condensate stock is cracked as indicated and products are either fractionated to produce a final distillate and condensate for recycling through the vapor phase cracking zone, or are combined with the primary or high pressure stage cracked products for fractionation therewith.

In the event the vapor phase or low pressure cracked products are separately fractionated, the final distillate may be combined with that produced by the fractionation of the high pressure cracked products resulting from the once-through cracking operation, or with the gasoline derived from the viscosity breaking cracking operation, or if desired other blends of the light final distillate may be made to produce a final product of desired characteristics. Heavy naphtha separated in the process may be reformed if desired and resulting high anti-knock gasoline may be blended with the other distillates to increase the anti-knock value of the final gasoline distillate.

An important condition of this invention is said to be that the temperatures and pressures of the primary and secondary cracking zones and time of passage of the oil should be selected to produce high cracking per pass in the primary single pass zone and relatively low conversion in the secondary recycling zone.

* * *

Decolorizing. No. 2 067 802, issued Jan. 12, 1937; filed July 5, 1933; C. F. Tears, assignor to The Petroleum Processes Corp.; one drawing; 7 claims.

• Mixture of viscous lubricating oil and liquefied propane solvent is heated under pressure to effect complete solution and extreme dilution of the lubricating oil. On cooling to a temperature corresponding to a solvent vapor pressure over 150 pounds per square inch the solution is reduced to optimum decolorizing temperature. The cooled solution is passed through a bed of absorbent decolorizing clay under the same pressure and then distilled under pressure to separate the solvent.

Advantages are said to be the use of a lesser quantity of diluent, greater penetration of the clay by the diluent, the pressure aids in the percolation method, recovery of diluent from clay by relieving pressure, and activating effect of fresh propane on the filter clay.

* * *

Lubricating oil. No. 2 067 334, issued Jan. 12, 1937; filed Nov. 19, 1931; R. C. Osterstrom, assignor to The Pure Oil Co.; one drawing; one claim.

• Process for treating unsaturated hydrocarbon distillate produced by vapor phase cracking to produce motor fuel and lubricating oil. The distillate is contacted with an adsorptive polymerizing catalyst at 500-600 F. under enough pressure to keep the distillate in the liquid phase in order to selectively polymerize the color imparting and gum-forming constituents. Polymers are separated from hydrocarbons boiling within the motor fuel range and distilled under sub-atmospheric pressure below cracking temperature to remove pitch-like substances as a residue. The viscous distillate fraction is condensed, subjected to refining with sulfuric acid to remove impurities, and neutralized.

Oklahoma City Field

(*Continued from page* 95)

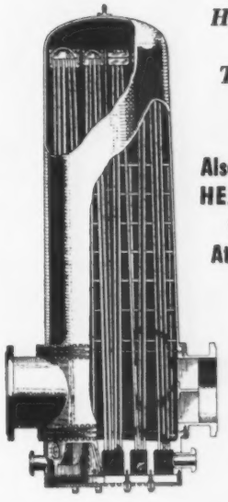
thing that has ever been thought of was used, or at least tried, in the production of oil. Stage-lifts, intermitters, ordinary gas-lift, the familiar plunger pump and the bottom-hole impeller type pump have been and are being used. The bureau report does not draw distinctions as to efficiency among these various kinds of lifting devices but leaves the inference that no one will do the most effective work under all conditions.

Wisely, the bureau engineers also refrained from attempting to set up a balance sheet on the field. Only an approximation could be given. It is probable that at this time an overall loss would be shown between total expense and total realization; this would be difficult to trace out even approximately, as leasehold costs, a substantial part of the whole, are impossible to calculate. Some companies did make a profit, some lost substantially.

The field is by no means marked for early extinction and its output will continue for considerable time to range between 100,000 and 125,000 barrels daily. But the palmy days are over and development is almost finished. Oklahoma City takes its place with the other residual fields of the country.

LEACH
FRACTO
CONDENSERS

for High Pressure and Temperature



Also
HEAT EXCHANGERS
for Vacuum and Atmospheric Service

Patented in the United States and Foreign Countries

Fracto Control

C. H. LEACH CO. Inc.
117 Liberty Street
NEW YORK, N. Y.

CATALYSIS

"CATALYTIC Reactions at High Pressures and Temperatures" is one of the most absorbing technical subjects among refining technologists today, and is therefore a most timely and fitting title for this 800-page volume just off the press, written by V. N. Ipatieff who is doubtless the most outstanding authority on Catalysis in the world.

This book covers the subject completely in its various phases, and does so in a manner to make it the most useful book on catalysis yet made available to the chemist. Price is $7.50.

Write to

NATIONAL PETROLEUM NEWS
1213 W. 3rd St., Cleveland, Ohio

VIKING

ROTARY PUMPS

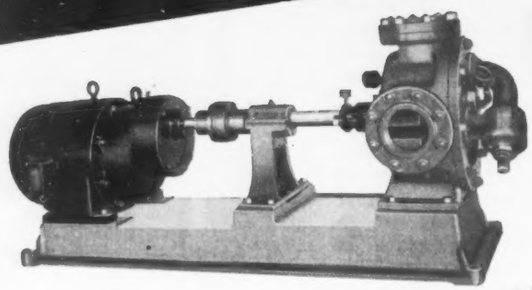


Figure 83—The Viking "Straitline" model, obtainable in sizes from 90 to 450 GPM

Viking Rotary Pumps have earned an envious reputation for both dependability and genuine operating economy . . . backed by years of intense research—proven in every type of industry, today, Viking Rotary Pumps lead the world. The "Straitline" model (figure 83), is as compact as it is efficient . . . requires less head room with its low, sturdy design, yet operates smoothly, silently. Sizes from 90 to 450 GPM.

For those bigger jobs, depend on Viking's large Twin Unit (figure 75) . . . each pump handles 450 GPM . . . mounted on either firewall or short base of extra heavy construction for mounting . . . heavy duty clutches, radial end thrust bearings, and standard 5" suction and discharge flanges. If your pumping needs call for maximum loading or unloading capacity and speed, install a large Viking Twin Unit. Also obtainable in 750 GPM "GIANT" size.

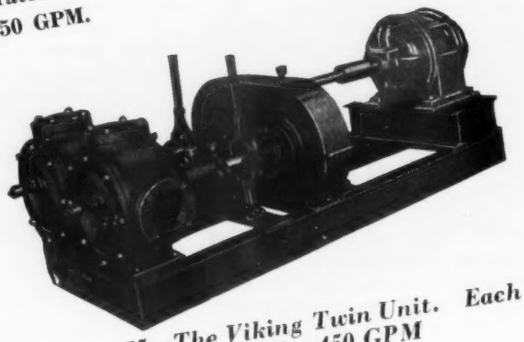


Figure 75—The Viking Twin Unit. Each pump handles 450 GPM

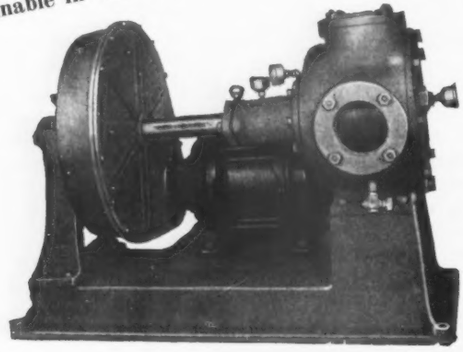


Figure 69—The Viking Steam Jacketed Pump, both 200 and 450 GPM sizes

For efficient handling of all viscous liquids such as heavy petroleum, organic oil, greases and coal tar, Viking's Steam Jacketed Pump does a capable job at an amazingly low operating cost. This unit (figure 69) is furnished complete with base, pedestal and gearing . . . can also be built up on Straitline bases with geared head motors. Supplied in both 200 and 450 GPM sizes.

Write For Special Bulk Plant Bulletin and Prices

VIKING PUMP CO.

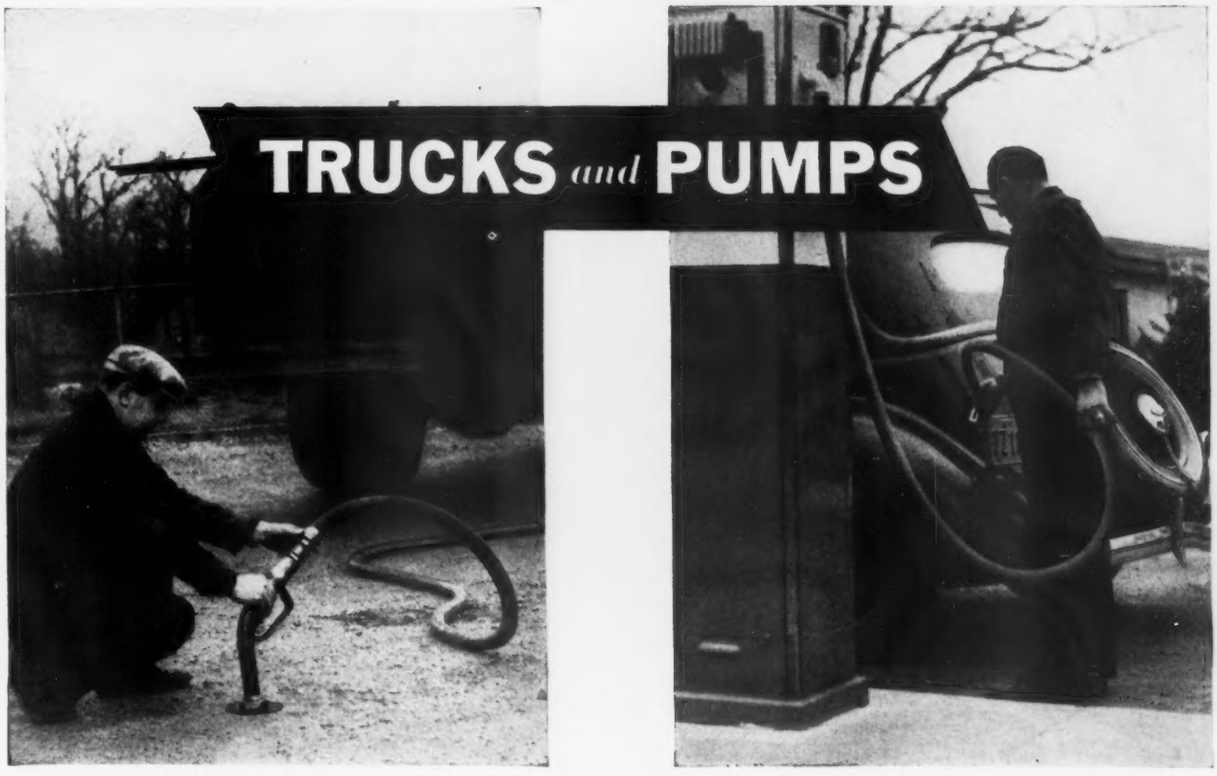
CEDAR FALLS, IOWA

ADVERTISING PAGES REMOVED

FOR REAL ECONOMY

SPECIFY SMOOTH-BORE NEOPRENE HOSE

for



THE use of NEOPRENE has made the smooth-bore hose practical for pump and wet service tank truck hose. And the smooth-bore hose is setting a new standard for low replacement costs.

This light-weight, flexible, *durable* hose finds favor with operators because it is so much easier to handle than the older type of hose; for the tough, resilient NEOPRENE lining replaces the heavy, clumsy metal lining used in ordinary hose.

NEOPRENE lined smooth-bore hose will deliver maximum service and operating economy. A trial will demonstrate this to your satisfaction. Rubber manufacturers and suppliers all over the country are ready to supply you with this new type of hose.

Ask your regular supplier for NEOPRENE lined hose or write us for a list of manufacturers.

DU PONT
REG. U. S. PAT. OFF.

NEOPRENE

Formerly sold under the trade-mark "Duprene"

IMPORTANT ADVANTAGES OF SMOOTH-BORE NEOPRENE HOSE

Greater Durability.

•

Lighter Weight.

•

Greater Flexibility.

•

Low Friction Loss—Speedier delivery or smaller-sized hose.

•

Lower Evaporation Loss.

•

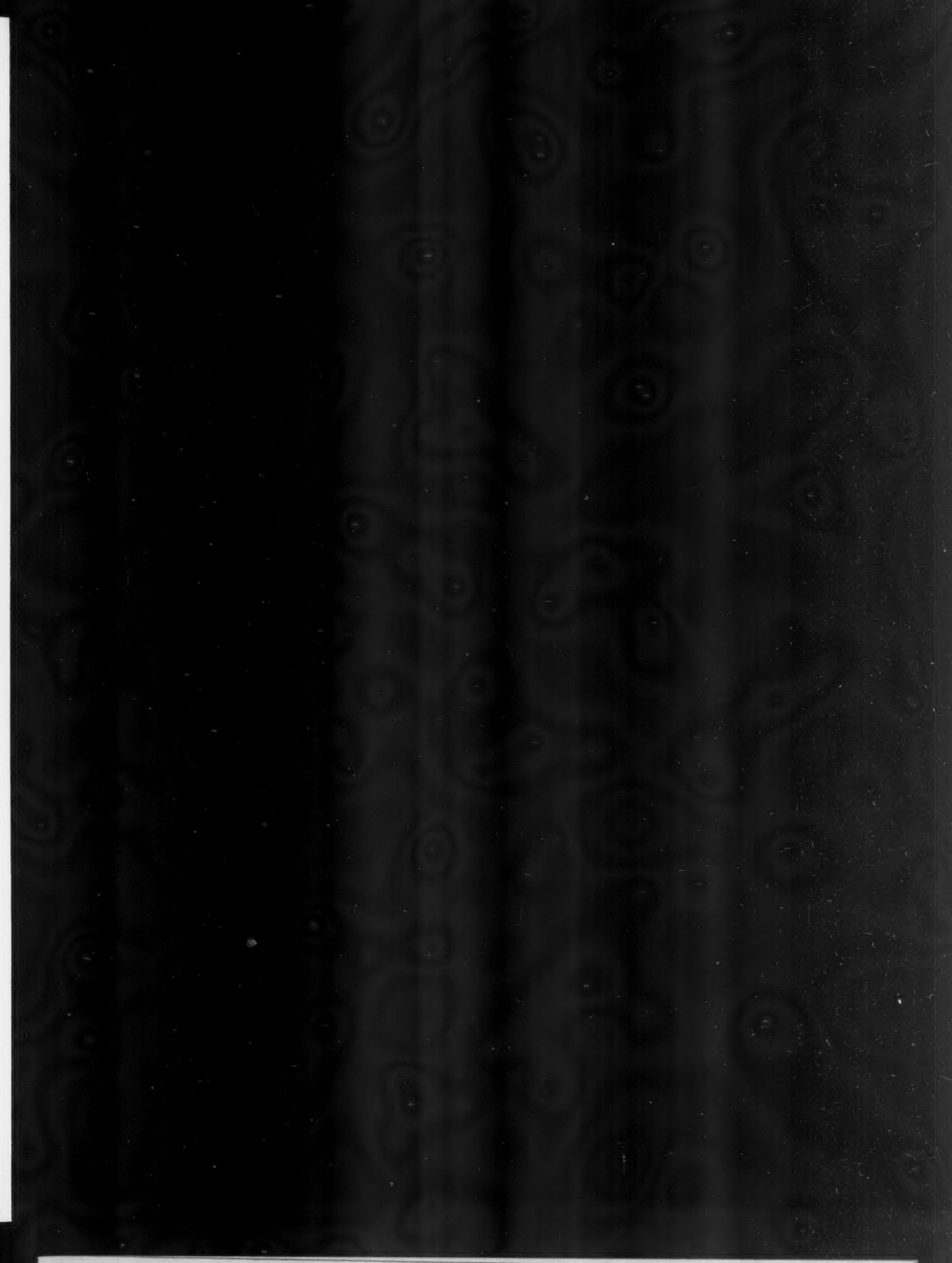
No Particles in the gasoline. NEOPRENE lined hose in curb service over two years showed no deterioration of the tube.

RUBBER CHEMICALS DIVISION, E. I. DU PONT DE NEMOURS & CO., INC., WILMINGTON, DELAWARE

J. EDGAR PEW

J. Edgar Pew, vice-president of Sun Oil Co., Philadelphia, was awarded the Anthony F. Lucas gold medal, for achievement in production engineering, at the annual meeting of the American Institute of Mining and Metallurgical Engineers. This was the first time this medal has been awarded and the first time an American producer has been so honored by a scientific society.

The medal was given in recognition of Mr. Pew's work for standardization of oil field equipment, which was started nearly 20 years ago through the Mid-Continent Oil & Gas Association.

In 1922 the American Petroleum Institute took up the project and made Mr. Pew chairman of a general committee on standardization. Within two years much of the preliminary work was done and Mr. Pew was elected the second president of the institute in 1924.

The first Lucas medal, which bears the name of the discoverer of the Spindletop field, thus goes to a pioneer producer who was engaged in production in that field in its flush days. Mr. Pew went to south Texas and Spindletop in 1901.